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Installation Guide

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## Edition

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# Chapter 1

## Hardware and Software Requirements

### Fax Server Requirements

Many of the software requirements for RightFax 9.4 are provided on RightFax Product Suite DVD. During Setup, a wizard will perform a system check for required third-party components and if necessary, will install them. Some components, such as Microsoft service packs and Microsoft Exchange server are not provided.

#### Supported Microsoft Windows Operating Systems

RightFax server software is Microsoft certified on the following server operating systems.

- Windows 2008 Standard x86
- Windows 2008 Enterprise x86
- Windows Server 2003 Standard x86 SP2 or later
- Windows Server 2003 R2 Standard x86 SP2 or later
- Windows Server 2003 Enterprise x86 SP2 or later

RightFax 9.4 does not support Windows 2000 Server operating systems. If you are upgrading from RightFax 9.0 or 9.3 and your server uses a Windows 2000 operating system, you must upgrade to Windows Server 2003 or 2008 before installing RightFax 9.4.



**Note** Windows 2008 Hyper-V is not supported.

### Minimum hardware requirements

Computer/Processor	2.6 GHz or higher Pentium IV-compatible CPU
Memory	1 GB RAM
Hard drive*	10 GB free space
CPU support	Single and dual CPU systems
Drive	DVD drive
Display	SVGA or higher resolution monitor running at a resolution of 800 × 600 or higher
Keyboard and mouse	Required



**Important** Hard disk requirements do not include space for storage of document images. To calculate disk space, Captaris recommends using an estimate of 35kb per document page.

### Recommended hardware requirements

Computer/Processor	3.6 GHz or higher Pentium IV-compatible CPU
Memory	2 GB RAM
Hard drive	10 GB free space
CPU	Dual CPU system

Drive	DVD drive
Display	SVGA or higher resolution monitor running at a resolution of 1024 × 768 or higher
Keyboard and mouse	Required

### Additional server requirements

- Microsoft .NET Framework 3.5\*
- Microsoft Data Access Components 2.8\*
- Microsoft Internet Explorer 6 SP1 or later
- Microsoft Internet Information Services (IIS) 6.0 SP2 or later
- Microsoft Messaging Queuing\*
- Microsoft Visual C++ 2005 runtime components\*
- Microsoft Windows Installer 3.1\*
- A Windows account to run RightFax services. The account you choose must be a member of the local administrators group and must have the right to logon as service on the local computer.

*\*Installed during RightFax setup*

### Supported Versions of Microsoft SQL Server

RightFax uses a SQL database to store all data on faxes, users, and dialing rules. During Setup, you have the option to connect to an existing SQL Server, or install a new RightFax database which includes a new installation of SQL Server 2005 Express directly on the RightFax server. Supported versions Microsoft SQL server are as follows.

- SQL Server 2000 Standard Edition
- SQL Server 2000 Enterprise Edition
- SQL Server 2005 Express
- SQL Server 2005 Standard Edition
- SQL Server 2005 Enterprise Edition

## SQL Requirements and Information

### New installation permissions

During new server installations, Setup will prompt for two SQL accounts. The first is used by Setup to execute SQL create statements during the creation of the RightFax database. This account is required only for Setup and is neither saved nor used by RightFax. The SQL permissions required for this account are provided below.

- Create database
- Create table
- Create procedure
- Create view
- Create rule
- Create default

The second account is used by and during Setup to run SQL stored procedures and subsequently by RightFax services requiring a SQL connection. To execute stored procedures, Setup will create a new RightFax database role (called DB\_executer) and will assign this account to the role.

### Normal operation of RightFax

The RightFax Database Module, DocTransport Module, Remoting Service, and Server Module request information from the RightFax database. Access to the database is controlled via the service account assigned to these services.

RightFax users without *Administrative Access* permission do not have direct access to the RightFax database.

The following access levels allow RightFax services to perform various tasks on the SQL Server.

- Server Roles: None required.
- **Select, Update, Insert, Delete, and Execute** permissions on all RightFax database objects. DB\_writer and DB\_reader database roles provide Select, Update, Insert, and Delete permission, but do not grant explicit Execute permission.

### Database collation support

The RightFax 9.4 database supports only the SQL Language collation. **Case sensitivity, Accent sensitivity and Kana sensitivity** collations are not supported. In addition, the language collation must be configured before you install RightFax and cannot be changed post-install.

### Database character set support



**Tip** Many of the RightFax client applications have localized versions that allow non-English speakers to easily use the RightFax client tools. See [page 35](#) for a complete list of the languages available in the RightFax client applications. The languages into which the RightFax client applications are translated are not related to the character sets that can be stored in the RightFax database as discussed in this section.

RightFax supports a wide range of characters and symbols from non-English alphabets, however, the RightFax server, SQL database, and client applications must *all* be configured to use the *same* symbol sets. If not, characters may not appear on your clients' outbound faxes as expected. This is because a character written on a client computer that is using *one* symbol set may map to an entirely different character when sent to a server using a *different* symbol set.

The symbol sets that are supported on the RightFax server and client computers are determined by the Regional and Language Options configured from Windows Control Panel and can be changed at any time. The symbol set used by the SQL database,

however, is encoded into the database when it is installed based on the current Regional setting on the SQL server. This is true whether you have a separate SQL server or are installing the SQL server during the RightFax installation. You should ensure that the Regional setting on the SQL server is properly configured for the character set that the server will support *before* installing the database. If you have already installed a SQL database with the incorrect Regional setting, contact Microsoft for assistance in reconfiguring the SQL regional setting.

The following ASCII code pages are supported by the RightFax server and client applications:

- 1250 Central Europe: Albania, Croatia, Faeroese, Hungarian, Polish, Romanian, Serbian, Slovak, Slovenian
- 1251 Cyrillic: Byelorussian, Bulgarian, Russian, Ukrainian
- 1252 Latin 1: Afrikaans, Basque, Catalan, Danish, Dutch (standard and Belgium), English (United States, Britain, Canada, New Zealand, Ireland, South Africa), Finnish, French (standard, Belgium, Switzerland, Canada, Luxembourg), German (standard, Switzerland, Austria, Luxembourg, Liechtenstein), Icelandic, Indonesian, Italian (standard, Swiss), Norwegian (Bokmal, Nynorsk), Portuguese (standard and Brazil), Spanish (Mexican, traditional, modern) and Swedish.
- 1253 Greek
- 1254 Turkish
- 1255 Hebrew
- 1256 Arabic
- 1257 Baltic: Estonian, Latvian, Lithuanian
- 1258 Vietnam



**Note** Time strips are printed using the printer's available symbol set regardless of the code page in use on the server. For characters on these lines to appear as expected, the code page on the fax server must match the printer's available symbol set. Because TTI lines and quick headers are placed onto the fax image by your fax board, RightFax does not support the use of diacritical characters on these lines.

## Virtualization Support

RightFax 9.4 server software supports VMware ESX server 3.0.1 or later. VMware Workstation and all other virtualization software is not supported.

### VMware ESX Server requirements

Requirements for all RightFax servers begin on [page 9](#). Additional requirements for virtual RightFax servers are as follows:

- Virtual RightFax servers must be installed on ESX platforms that meet the minimum requirements as documented by VMware. Captaris recommends a virtual machine dedicated to each RightFax server.
- No virtual RightFax server may contain fax board hardware.
- Sending and receiving fax documents requires a boardless solution (e.g., FOIP) or dialing rules to route faxes to and from a physical server that contains one or more fax boards. For more information about creating dialing rules, see the *Administrator's Guide*.

## FaxUtil Legacy Support

RightFax 9.4 servers are compatible with FaxUtil versions 9.0 or later.

## Fax Board Requirements

RightFax supports Dialogic (formerly Cantata) Brooktrout fax boards, and Eicon fax boards. For a list of all supported fax board types, refer to the online list of supported fax boards at the Captaris Web site.

### Installing the fax boards

Fax boards can be installed in the physical computer running the RightFax server software, or on a separate computer called a Remote DocTransport. For information on using Remote DocTransport computers, refer to the *RightFax Administrator's Guide*.

## Phone Line Requirements

The fax boards that RightFax supports can make use of several different types of phone lines: loop-start (regular analog phone lines), Direct Inward Dial (DID), Dialed Number Identification Service (DNIS), Integrated Services Digital Network (ISDN), and several types of digital phone lines. Different types of fax boards support different types of phone lines. For information on the types of fax boards that are compatible with your available phone lines, refer to your fax board supplier or manufacturer.

### Loop-start phone lines

Loop-start lines can be used for incoming or outgoing faxes. A line can be installed by the local telephone company if one is not already available through your organization's existing phone system. Loop-start lines are also called POTS (Plain Old Telephone Service) lines.

## Direct Inward Dial (DID) phone lines

Each DID phone line is called a “trunk.” When a DID trunk is installed, it is assigned a bank of numbers. For example, a DID trunk may be assigned the bank of 20 numbers ranging from 321-7450 to 321-7469. All calls to any of the assigned numbers are routed to the DID trunk.

DID phone lines have a few special attributes. First, DID lines are used for incoming faxes only. Outgoing faxes must be sent through a standard loop-start line. Second, the customer, rather than the phone company, supplies the power (called the “talk battery”) necessary to drive the phone line. For this reason, certain DID fax boards may come with an additional power adapter which provides the necessary –48 volt current.

DID allows RightFax to route incoming faxes to their destinations within your company. Whenever someone dials a number within the range, the DID trunk is activated by the phone company and the fax board accepts the incoming fax. Along with the fax data, the phone company sends the board the last three or four digits of the phone number dialed. The fax board collects these digits and passes them to RightFax. Each RightFax user has a personal fax mailbox which is assigned one of the DID trunk’s numbers (known as the “routing code”). Received faxes are routed to the mailbox whose routing code matches the dialed DID number.



**Warning** *Never plug a loop-start phone line into a DID fax board when there is any voltage present on the phone line. Doing so will damage the fax board and void all warranties.*

## Dialed Number Identification Service (DNIS) phone lines

DNIS is a T1-based version of DID service. For information on configuring your fax boards for DNIS, refer to the hardware guide included with your fax board.

## Integrated Services Digital Network (ISDN) phone lines

ISDN is a worldwide standard communications network for digital data, voice, and video communication. The main advantages of ISDN over analog telephone lines are fast call setup and release and additional cost-recovery information included with the call.

## PRI, BRI, E1, and T1 digital phone lines

RightFax supports PRI, BRI, E1, and T1 digital phone lines assuming you have purchased and installed the appropriate type of fax boards and network interface card. For more information on digital phone lines, refer to the *RightFax Fax Board Guide*.

■ ■ ■





## Chapter 2

# What Is Installed on the RightFax Server?

The RightFax server installation program installs the complete suite of RightFax products. The capabilities of the server and the modules that are enabled depend on your product licensing. Because all of the RightFax software is installed, the RightFax server can be upgraded and optional modules can be added simply by purchasing a license and activating the feature. For information about upgrading the server and adding new RightFax modules, see [Chapter 9, "Upgrading and Adding Fax Channels, User Licenses, and Optional Components"](#).

In addition to the installed software, The RightFax installation creates several Windows services, adds RightFax configuration settings to the Windows Registry, adds configuration programs to Windows Control Panel, and installs the FaxUtil and Enterprise Fax Manager client programs.

RightFax uses a SQL database to store all data on faxes, users, and dialing rules. If you do not connect to an existing SQL database on your network during installation, RightFax will install and use a SQL Server 2005 Express database on the RightFax server. This is a fully-functional SQL database, but lacks the SQL management tools that accompany the full version of Microsoft SQL server.

## RightFax Software

All of the RightFax software is installed on the server in the folder you specify during installation. By default, the software installs in the C:\Program Files\RightFax folder.

## RightFax Configuration Programs

The RightFax server includes several configuration programs that let you customize the RightFax services. The RightFax configuration programs can be run from Windows Control Panel or from Enterprise Fax Manager (described in the *RightFax Administrator's Guide*).

The following table describes all of the RightFax configuration programs that are available.



**Note** Some of these configuration programs may not be enabled on the server, depending on the type of RightFax server you have licensed and the modules that are enabled.

Table 2a RightFax Server Configuration Programs

Configuration program	Description
Captaris Conversion Engine	The Captaris Conversion Engine is a stand-alone, fault tolerant service that is used to invoke applications commonly used in server-side application conversion. These applications will be used to convert their associated file types when installed on the RightFax server and remote WorkServers.
Captaris Sync	The Captaris Sync Module is an XML/XSLT based tool that allows RightFax administrators to create and synchronize users from Active Directory domains, groups, and organizational units. LDAP compliant data sources are also supported.
RightFax Alerting	Use this program to configure the RightFax Alerting and Monitoring feature. This feature lets RightFax administrators create custom server statistics to monitor and define thresholds on which to send alerts. For more information on the Alerting and Monitoring feature, refer to the <i>RightFax Administrator's Guide</i> .

Table 2a RightFax Server Configuration Programs (Continued)

Configuration program	Description
RightFax BoardServer	<p>This is a configuration program used for legacy Brooktrout fax boards supported by RightFax. Use the BoardServer configuration program to customize each installed fax board and each fax channel. Although you may have only one BoardServer service installed on a single computer, you can optionally create RightFax BoardServer services on remote computers to offload fax board processes or to expand your network's fax board and fax channel capacity. For more information on BoardServers, refer to the <i>RightFax Administrator's Guide</i>.</p> <p>The BoardServer configuration program can only be launched from within the Doc Transport program (described next.)</p> <p>For more information on the fax boards you use and their configuration requirements, refer to the <i>RightFax Fax Board Guide</i>.</p>
RightFax Doc Transport	<p>The Doc Transport configuration program is used to configure most transport methods for your RightFax documents including standard fax boards, T.37 Fax-over-IP, SMS (short message service) and fax board simulation.</p> <p>All fax board configuration, including BoardServer configuration, is initiated from this configuration program.</p> <p>For more information on the fax boards you use and their configuration requirements, and the T.37 and T.38 Fax-over-IP features, refer to the <i>RightFax Fax Board Guide</i>. For information on document transport via SMS, refer to the <i>RightFax Administrator's Guide</i>.</p>

Table 2a RightFax Server Configuration Programs (Continued)

Configuration program	Description
RightFax E-mail Gateway	Use this program to create and modify the RightFax e-mail gateway services. E-mail gateway services act as the communication link between the RightFax server and your organization's e-mail software. It is possible to install multiple e-mail gateways, each communicating with a different e-mail server. For more information on e-mail gateways, refer to the <i>RightFax Administrator's Guide</i> , the <i>RightFax Gateway for Microsoft Exchange Guide</i> , or the <i>RightFax Gateway for Lotus Notes Guide</i> (depending on the gateway you add).
RightFax Integration	Use this program to modify the RightFax Integration Module service. The Integration Module integrates the RightFax server with applications on mainframe, mid-range, and local area network host systems. For more information on the RightFax Integration Module, refer to the <i>RightFax Integration Module Guide</i> .
RightFax Remoting	Provides an internal API used by RightFax .NET applications and services, such as Web Access and the Captaris Sync Module. The Remoting service also provides a statistics API which is used by RightFax services to generate statistics about how often those services start and stop..
RightFax SAP Connector	Use this program to create and modify the RightFax SAP gateway services. SAP gateway services act as the communication link between the RightFax server and SAP clients. It is possible to install multiple SAP gateways, each communicating with a different SAP client. For more information on the SAP gateway module, refer to the <i>RightFax Connector for SAP R/3 Guide</i> .

Table 2a RightFax Server Configuration Programs (Continued)

Configuration program	Description
RightFax Server	Use this program to modify the RightFax Server service. The Server service controls all of the RightFax services and coordinates communication between the server computer, client computers, fax boards, and the fax database. For more information on the RightFax Server service, refer to the <i>RightFax Administrator's Guide</i> .
RightFax WorkServer	Use this program to create and modify the RightFax WorkServer services. WorkServer services perform the most processor-intensive functions required by the RightFax server, such as cover sheet generation, PCL-to-fax conversion, and optical character recognition. By default, three separate WorkServer services are installed on the RightFax server, and each WorkServer service can be customized to perform specific functions. You can also create RightFax WorkServer services on remote computers to offload your most processor-intensive functions. For more information on WorkServers, refer to the <i>RightFax Administrator's Guide</i> .

## RightFax Services

The names of all RightFax services begin with the word “RightFax” or “Captaris.” This lets you easily identify all of RightFax services that are currently running. You can modify most RightFax services through their configuration programs, which can be run from Windows Control Panel or from the RightFax administrative program, Enterprise Fax Manager (described in the *RightFax Administrator's Guide*).

## RightFax Registry Entries

All of the RightFax registry entries are located in the Windows Registry under the following keys:

- HKEY\_CURRENT\_USER\SOFTWARE\RightFax
- HKEY\_CURRENT\_USER\SOFTWARE\RightFax Client
- HKEY\_LOCAL\_MACHINE\SOFTWARE\RightFax
- HKEY\_LOCAL\_MACHINE\SOFTWARE\RightFax Client
- HKEY\_CLASSES\_ROOT\RF...
- HKEY\_CLASSES\_ROOT\RightFax...

In most cases, you should not have to make changes or additions to the RightFax registry settings, however, some RightFax features do require you to make modifications to the Windows Registry. Wherever this is true, instructions are provided in the RightFax documentation.

## RightFax Client Applications

In addition to the RightFax server software, several RightFax client applications are available to allow administration of fax servers (Enterprise Fax Manager), user access to fax mailboxes (FaxUtil), print drivers that allow users to print documents directly to fax format (RightFax print drivers), and Web-based versions of these applications. For more information about FaxUtil, Enterprise Fax Manager, RightFax print drivers, and Web-based applications, refer to the *RightFax Administrator's Guide* or the online help that is built-in and shipped with each client.

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## Chapter 3

# Upgrading RightFax Server Software

### Upgrade Information

- You can only upgrade to RightFax 9.4 from versions 9.0 with Feature Pack 2 and later installed or 9.3 with the latest feature pack and service release installed. If you are running an earlier version of RightFax, you must either upgrade to a supported version, or uninstall the RightFax server and perform a new install.
- RightFax 9.4 does not support Windows 2000 Server operating systems. If you are upgrading from RightFax 9.0 or 9.3 and your server uses a Windows 2000 operating system, you must either upgrade to Windows Server 2003 or 2008 before installing RightFax 9.4 or perform a new install and migrate your existing RightFax settings.
- Support for some fax boards has been discontinued with this release. For a complete list of fax boards supported by this version, refer to the online list of supported fax boards at the Captaris documentation Web page. If you have already installed one or more fax boards that do not appear on this list, do not upgrade to this version of RightFax.
- All 9.0 installations that use an MSDE database must upgrade MSDE to a supported version of SQL Server (see [“Supported Versions of Microsoft SQL Server”](#) on [page 10](#)). By default, Setup will upgrade local MSDE installations to SQL Server 2005

Express.



**Important** Setup can upgrade only local MSDE installations. If your organization is using a remote MSDE server, you must upgrade MSDE to a supported version of SQL Server before upgrading to RightFax 9.4.

- After the MSDE to SQL Server 2005 Express upgrade, you may see error messages when attempting to run OSQL backup and restore procedures. These errors are cosmetic and do not cause any loss in functionality. For more information, see Microsoft Knowledge base article 907284.
- Before upgrading, back up the entire \RightFax folder structure. To get a complete server backup, you must first stop all RightFax services. For information on RightFax backup procedures, see the RightFax *Administrator's Guide*.

- Any existing files for the RightFax SecureDocs Module or Enterprise Fax Manager Web Edition will be replaced during the upgrade. If you have created customized files for any of these applications, you must save copies of the customized files before upgrading, and then merge your customizations into the upgraded files.
- By default, the RightFax Server Module, RPC service, and Queue Handler service are setup to startup automatically. If you have changed the startup type from automatic to manual, Setup will restore the default (automatic) startup type during the upgrade. Each service may be reconfigured for manual startup after finishing the upgrade.

### Updates may be available

By the time you receive this software, new information or software updates may be available. For the latest information on RightFax software, visit the RightFax support Web site at [www.captaris.com/support/downloads/rightfax/index.html](http://www.captaris.com/support/downloads/rightfax/index.html). This Web site may provide up-to-date information on installing and upgrading the RightFax server.

### Rolling out a software upgrade

If you have a large enterprise with a complex server and client network, you may want to gradually phase in the RightFax software upgrade.

Because the RightFax server software is backward-compatible with all supported versions (9.0 and 9.3) of the RightFax client software, you should plan to upgrade the server first, and then upgrade the client systems later.

The RightFax servers need not all be upgraded at the same time. You can run a network of RightFax servers of different supported versions without loss of functionality. The same is true for RightFax client applications.

For more information about the installation of RightFax client applications, “[Installing RightFax Client Applications](#)” on [page 35](#).

## Running the RightFax Server Upgrade

The RightFax 9.4 Setup wizard will upgrade all supported versions of local RightFax software. This includes all core server software, fax board drivers and software, the RightFax database, and Administrative Utilities. Setup will also upgrade RightFax database installations on remote SQL Servers. If you are upgrading from a RightFax 9.0 MSDE integration, Setup will upgrade your MSDE installation to Microsoft SQL Server 2005 Express.

1. Log on to the computer using a Windows account that is a member of the domain and local Administrators group.
2. Insert the RightFax Product Suite DVD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the DVD and run **Setup.exe**. The RightFax Product Suite Setup wizard opens.
3. RightFax 9.4 Setup requires Microsoft .NET Framework 2.0 or later and Windows Installer 3.1. If this software is not installed on your system, Setup will prompt you to install it. To install, click **OK**. To cancel Setup and install .NET Framework 2.0 and Windows Installer 3.1 yourself, click **Cancel**.
4. Review the welcome screen and click **Next**.
5. Carefully read and accept the license agreement and click **Next**.
6. Setup can check for RightFax updates and other late-breaking information. To check for updates, verify you have an active HTTP connection and click **Check for Updates**. If updates are found, follow the instructions in the **Result** section. To skip the update check and continue with Setup, check the box next to **Do not check for updates** and click **Next**.
7. The **Preview Requirements** step lists third-party software required by your existing features and also lists the status of setup operations. Software that must be installed will have a status of *Not Installed*. To continue, click **Next**.

8. If your environment uses remote RightFax servers (e.g., remote DocTransports, remote WorkServers, remote E-mail Gateways, remote IIS servers, and computers joined to a RightFax collective), you must manually shutdown all running RightFax services on these computers. If you have shutdown all remote RightFax services, or do not use remote RightFax servers, place a check mark in the box next to the text that reads *I have shutdown all remote RightFax services*. To continue, click **Next**.
9. RightFax requires TCP ports 10520, 10521, 10062, 34987, and 34988. Setup can reserve these ports for exclusive use by RightFax. To allow setup to reserve these ports, enable the **Reserve Ports** option and click **Next**.
10. To apply your upgrade settings and install required third-party software, click **Apply**.
11. To proceed to the second phase of Setup and begin installing RightFax software, click **Next** followed by **Apply**. This step may take several minutes.
12. The third and final phase of Setup guides you through the configuration of RightFax settings and will enable your feature set using the Captaris product licensing utility. To continue, click **Next**.
13. Setup will upgrade your existing RightFax database to version 9.4. Before continuing, verify a functional database backup. If your server is joined to a RightFax collective, also verify that all RightFax services and applications on all other computers joined to the collective are stopped and closed. Review the information at the database upgrade screen and check the box next to the text that reads *The database has been backed up*. To continue, click **Next**.
14. To launch the Captaris Product Licensing Utility (or PLU) and activate RightFax 9.4, click **Launch Licensing Utility**.
15. You may activate RightFax using the Internet or using a local license file. Click **Activate** to license your RightFax server via the Internet (see the next paragraph to activate with an existing

license file). Enter your e-mail address and SUID. When finished, click **Continue**. Fill-in your information as needed and click **Activate**. To complete activation, read the license agreement and click **Accept**. When finished and to return to Setup, click **OK**.

If you are already in possession of a license file and do not need to activate over the Internet, click **Import** and follow the steps in the **Instructions** section of the PLU. To complete activation, read the license agreement and click **Accept**. When finished, close the PLU and click **OK** to return to setup.

To activate your server in the absence of an Internet connection, refer to [“Activating RightFax components without a RightFax server Internet connection”](#) on page 67.

16. To complete Setup, click **Apply** followed by **Finish**.

If you have upgraded from a RightFax 9.0 server with a Brooktrout 1034 faxboard installed, you must run a separate install batch file to remove unsupported, non-plug-and-play drivers and install new Brooktrout drivers that are plug-and-play compatible. When finished, a reboot may be required.

- a. Browse to the `\RightFax\DocTransport\Brooktrout` folder.
- b. Double-click `installdriver.exe` or `installdriver64.exe` if you are installing on an x64 server. A command prompt window opens. After a few seconds the install will complete.



**Important** To complete your upgrade you must run the RightFax Product Suite Setup on each of your organizations remote RightFax servers (e.g., remote DocTransports, remote WorkServers, remote E-mail Gateways, remote IIS servers, and computers joined to a RightFax collective).





## Chapter 4

# Installing RightFax Server Software

### New Installation Overview

The RightFax server is the computer that runs the fax server software. The server performs all the work required for sending and receiving faxes, including managing the fax database, converting documents into fax images, adding signatures, overlaying forms, maintaining logs, printing faxes, and creating fax cover sheets.

The RightFax server installation lets you create a new RightFax database on an existing SQL server or install a SQL Server 2005 Express database directly on the RightFax server. SQL Server 2005 Express does not include any SQL management tools such as database backup utilities. If you intend to install SQL Server 2005 Express, Captaris recommends that you purchase a separate SQL backup utility and any additional SQL management tools you feel necessary for proper management of your RightFax database.

A typical RightFax server installation consists of these major tasks:

1. Optionally install the fax boards into your RightFax server chassis. If you will be using one or more remote DocTransport computers or will be installing RightFax on a VMware ESX server, you do not need to have fax boards installed in the RightFax server computer. For more information on using remote DocTransport computers, refer to the *RightFax Administrator's Guide*.
2. Install the RightFax server software.

3. Configure the RightFax Server, WorkServer, and DocTransport modules (described in the *RightFax Administrator's Guide*).
4. Test the fax boards (described in the *RightFax Fax Board Guide*).
5. Set up users and other RightFax database objects using Enterprise Fax Manager (described in the *RightFax Administrator's Guide*).
6. Install additional features as needed on remote servers (e.g., Microsoft Exchange servers and Microsoft IIS web servers).



**Note** for information on the setup and configuration of RightFax Server Collectives, see ["Installing and Configuring the Shared Services Module"](#) on page 47.

### Updates may be available

By the time you receive this software, new information or software updates may be available. For the latest information on RightFax software, visit the RightFax support Web site at [www.captaris.com/support/downloads/rightfax/index.html](http://www.captaris.com/support/downloads/rightfax/index.html). This Web site may provide up-to-date information on installing and upgrading the RightFax server.

## Installing and Integrating RightFax with SQL Server 2005 Express

This section outlines the steps to install a RightFax 9.4 integration with a local instance SQL Server 2005 Express.

To ensure that your RightFax server installation goes smoothly and to avoid unnecessary delays, it is important to perform each step in the installation completely and correctly before proceeding to the next step.

### To install RightFax 9.4

1. Log on to the computer using a Windows account that is a member of the domain and local Administrators group.
2. Insert the RightFax Product Suite DVD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the DVD and run **Setup.exe**. The RightFax Product Suite Setup wizard opens.
3. RightFax 9.4 Setup with requires Microsoft .NET Framework 2.0 or later and Windows Installer 3.1. If this software is not installed on your system, Setup will prompt you to install it. To install, click **OK**. To cancel Setup and install .NET Framework 2.0 and Windows Installer 3.1 yourself, click **Cancel**.



**Note** RightFax server software requires .NET 3.5. This software is installed during step 12. Optionally, you may cancel Setup, install .NET 3.5, and re-run RightFax Setup.

4. Review the welcome screen and click **Next**.
5. Carefully read and accept the license agreement and click **Next**.
6. Setup can check for RightFax updates and other late-breaking information. To check for updates, verify you have an active HTTP connection and click **Check for Updates**. If updates are found, follow the instructions in the **Result** section. To skip the update check and continue with Setup, check the box next to **Do not check for updates** and click **Next**.

7. Select the components for this install. A *Typical Server* includes all core server components, but does not include fax board and FOIP drivers, RightFax Web Access, and Administrative Utilities. To install fax board drivers, click the box next to *Include fax board and FOIP drivers*. To create a custom set of features to install, click **Custom**. After choosing your feature set, click **Next**.



**Tip** The software product license cards that are included with your RightFax software package will contain your licensed features.

8. The **Preview Requirements** step lists third-party software required by your chosen features and also lists the status of setup operations. Software that must be installed will have a status of *Must Install*. To continue, click **Next**.
9. If your server does not already have Microsoft Message Queuing installed, Setup will prompt you to install it. Select your option and click **Next**.
10. Select option to:
  - **Install Microsoft SQL Server 2005 Express Edition on this computer.** Select this option to install a local instance of SQL Server 2005 Express specifically for use with RightFax. To continue, click **Next**.

Choose a **Typical** or **Custom** SQL Server 2005 Express installation. Typical installations install to the default Windows program files folder (e.g., C:\Program Files), enables Windows authentication, creates a default instance name (RightFax), and sets the RightFax services to run using the Local System account.

Chose **Custom** to setup SQL Server 2005 Express using an interactive install, which allows advanced configuration and the option to specify the installation folder, authentication method, instance name, and service account and password. For more information on customizing SQL Server Express 2005 installs, consult Microsoft Documentation.

To continue, Click **Next**.

11. RightFax requires TCP ports 10520, 10521, 10062, 34987, and 34988. Setup can reserve these ports for exclusive use by RightFax. To allow setup to reserve these ports, enable the **Reserve Ports** option and click **Next**. If you do not reserve these ports, some RightFax services may not start.
12. To apply your settings and install required third-party software, click **Apply**. This will take several minutes. When finished, click **Next**.
13. Choose your installation folder and click **Next**.
14. To begin installing RightFax software, click **Apply**. This may take several minutes.
15. The third and final phase of Setup will activate RightFax using the Captaris product licensing utility. To continue, click **Next**.
16. To launch the Captaris Product Licensing Utility (or PLU) and activate RightFax 9.4, click **Launch Licensing Utility**.
17. Click **Activate** to license your RightFax server via the Internet (see the next paragraph to activate with an existing license file). Enter your e-mail address and SUID. When finished, click **Continue**. Fill-in your information as needed and click **Activate**. To complete activation, read the license agreement and click **Accept**. When finished and to return to Setup, click **OK**.

If you are already in possession of a license file and do not need to activate over the Internet, click **Import** and follow the steps in the **Instructions** section of the PLU. To complete activation, read the license agreement and click **Accept**. When finished, close the PLU and click **OK** to return to setup.

To activate your server in the absence of an Internet connection, refer to [“Activating RightFax components without a RightFax server Internet connection”](#) on page 67.

18. To complete Setup, click **Apply** followed by **Close**.

## Installing and Integrating RightFax with SQL Server 2000 or 2005

This section outlines the steps to install a RightFax 9.4 integration with an existing SQL Server 2000 or 2005 environment.

### Advanced database setup

During the installation of RightFax, Setup can create a new RightFax database using a fully-automated process. To accomplish this, Setup requires a SQL account that is assigned the following explicit permissions:

- Create database
- Create table
- Create procedure
- Create view
- Create rule
- Create default

If the *Create database* permission is not available to you, a SQL administrator may, in advance of Setup, create an empty database to remove the *Create database* requirement. This does not, however, eliminate the need for *Create table*, *Create procedure*, *Create view*, *Create rule*, and *Create default* permission.

### SQL admin task

1. Create a new SQL database. Captaris recommends using *RightFax* as the database name, however, this is not a requirement and custom database names are supported.
2. Assign the database a SQL account that is a member of the **db\_datareader** and **db\_datawriter** roles and explicitly permitted to *Create table*, *Create procedure*, *Create view*, *Create rule*, and *Create default*. This account must be used during Setup, but is not required for or during RightFax production.



**Note** For information on installing RightFax Web Applications, see [“Installing RightFax Web Applications”](#).

## RightFax admin tasks

1. Install RightFax server software (described in the next section) using the following options:
2. At step 17, choose the option to *Assume Ownership*.
3. At step 18, enter the required SQL information making sure to select your pre-configured database and the service account you assigned to the database by the SQL administrator.
4. Complete the remaining install tasks.

## To install RightFax server software

To ensure that your RightFax server installation goes smoothly and to avoid unnecessary delays, it is important to perform each step in the installation completely and correctly before proceeding to the next step.

1. Log on to the computer using a Windows account that is a member of the domain and local Administrators group.
2. Insert the RightFax Product Suite DVD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the DVD and run **Setup.exe**. The RightFax Product Suite Setup wizard opens.
3. RightFax 9.4 Setup requires Microsoft .NET Framework 2.0 or later and Windows Installer 3.1. If this software is not installed on your system, Setup will prompt you to install it. To install, click **OK**. To cancel Setup and install .NET Framework 2.0 and Windows Installer 3.1 yourself, click **Cancel**.



**Note** RightFax server software requires .NET 3.5. This software is installed during step 12. Optionally, you may cancel Setup, install .NET 3.5, and re-run RightFax Setup.

4. Review the welcome screen and click **Next**.
5. Carefully read and accept the license agreement and click **Next**.

6. Setup can check for RightFax updates and other late-breaking information. To check for updates, verify you have an active HTTP connection and click **Check for Updates**. If updates are found, follow the instructions in the **Result** section. To skip the update check and continue with Setup, check the box next to **Do not check for updates** and click **Next**.
7. Select the components for this install. A *Typical Server* includes all core server components, but does not include fax board and FOIP drivers, RightFax Web Access, and Administrative Utilities. To install fax board drivers, click the box next to *Include fax board and FOIP drivers*. To create a custom set of features to install, click **Custom**. After choosing your feature set, click **Next**.



**Tip** The software product license cards that are included with your RightFax software package will contain your licensed features.

8. The **Preview Requirements** step lists third-party software required by your chosen features and also lists the status of setup operations. Software that must be installed will have a status of *Must Install*. To continue, click **Next**.
9. If your server does not already have Microsoft Message Queuing installed, Setup will prompt you to install it. Select your option and click **Next**.
10. Select the option to:
  - **Use an existing SQL Server**. Select this option to add a RightFax database instance to an existing SQL server running on your network. To continue, click **Next**.
11. RightFax requires TCP ports 10520, 10521, 10062, 34987, and 34988. Setup can reserve these ports for exclusive use by RightFax. To allow setup to reserve these ports, enable the **Reserve Ports** option and click **Next**. If you do not reserve these ports, some RightFax services may not start.

12. To apply your settings and install required third-party software, click **Apply**. This will take several minutes. When finished, click **Next**.
13. Choose your installation folder and click **Next**.
14. To begin installing RightFax software, click **Apply**. This may take several minutes.
15. The third and final phase of Setup guides you through the configuration of RightFax settings and will enable your feature set using the Captaris product licensing utility. To continue, click **Next**.
16. Enter a Windows account to run RightFax services. This account must be a member of the local administrators group and must have the right to logon as service on the local computer. Click **Browse** to load and select a user account. Use the **Test Account** button verify account credentials. When finished, click **Next**.



**Note** *If you will be accessing files from or printing to Novell queues on a NetWare volume, the service account must also exist in Novell.*

17. Choose your database installation option (either *Create New RightFax Database* or *Assume Ownership*) and click **Next**.
18. Setup must execute SQL create statements that require elevated account permissions. This account is required only for Setup and is neither saved nor used by RightFax. Required SQL statement permissions are as follows:
  - Create database
  - Create table
  - Create procedure
  - Create view
  - Create rule
  - Create default

When finished, click **Next**.

19. Enter your SQL server name, authentication type, and a service account. The information you enter is used to create a SQL connection string for RightFax services. These items are critical and should be documented safely and securely. The service account must have the following permissions on the database:

- Select
- Update
- Insert
- Delete
- Execute

If your existing SQL server uses a port number other than the default of 1433, you must specify the port number during Setup. Specify your port in the **Server Name** field using the following syntax:

**For example:**

SQLServer,55123 *or*

SQLServer\MyInstance,55123

When finished, click **Next**.

20. Accept the default name or type a new name for the RightFax database and click **Next**.
21. To launch the Captaris Product Licensing Utility (or PLU) and activate RightFax 9.4, click **Launch Licensing Utility**.

22. Click **Activate** to license your RightFax server via the Internet (see the next paragraph to activate with an existing license file). Enter your e-mail address and SUID. When finished, click **Continue**. Fill-in your information as needed and click **Activate**. To complete activation, read the license agreement and click **Accept**. When finished and to return to Setup, click **OK**.

If you are already in possession of a license file and do not need to activate over the Internet, click **Import** and follow the steps in the **Instructions** section of the PLU. To complete activation, read the license agreement and click **Accept**. When finished, close the PLU and click **OK** to return to setup.

23. To complete Setup, click **Apply** followed by **Close**.



**Note** For information on installing RightFax Web Applications, see ["Installing RightFax Web Applications"](#).

4. To remove all local RightFax settings and software, click *Remove all documents, images, and settings* followed by **Next**.
5. Verify that all RightFax services and applications on all remote RightFax servers are closed or stopped. When finished, click *All remote RightFax services have been manually shutdown*. When the uninstall process is complete, click **Next**.
6. To shutdown all local RightFax processes, click **Next** followed by **Apply**.
7. To complete the uninstall, click **Close**

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## Uninstalling the RightFax Server



**Warning** When you uninstall the RightFax server, all RightFax program files, Windows Registry settings, and shortcuts are removed. In addition, all of your RightFax configuration settings are removed. The RightFax database, however is not removed and must be manually removed using SQL protocols. Captaris recommends that you back up the contents of the entire RightFax folder before uninstalling the software. For information on creating a backup of the RightFax server, refer to the *RightFax Administrator's Guide*.

1. Log on to the computer using a Windows account that is a member of the domain and local Administrators group.
2. Insert the RightFax Product Suite DVD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the DVD and run **Setup.exe**. The RightFax Product Suite Setup wizard opens.
3. In the list of options, select **Uninstall** and click **Next**. The RightFax install wizard opens.

## Chapter 5

# Installing RightFax Web Applications

The information and instructions provided in this chapter assume you have a functional RightFax server that is licensed to use RightFax Web applications. For information on installing RightFax server software, see ["Installing RightFax Server Software"](#) on [page 23](#). To activate RightFax Web applications, see ["Upgrading and Adding Fax Channels, User Licenses, and Optional Components"](#) on [page 65](#).

The following RightFax Web applications support Microsoft Internet Information Servers (IIS) version 6.0 SP2 or later.

- Enterprise Fax Manager Web Edition
- RightFax Certified Delivery
- RightFax SOAP Server (requires SOAP client. For information on installing the SOAP client, see ["Installing RightFax Client Applications"](#) on [page 35](#)).
- RightFax Web Access

All RightFax Web applications should *not* be installed on the same computer as the RightFax server software, even if IIS is installed on the RightFax server. Captaris recommends installing all Web applications on a dedicated IIS server, separate from the RightFax server.

When installing RightFax Web applications, you have the option to allow Setup to configure IIS settings as they relate to RightFax Web applications or you may choose to configure IIS settings yourself. For information on advanced, manual configuration of IIS settings, see ["Manual setup of Web applications"](#) on [page 31](#).

## Other Help Resources

Additional Help resources for RightFax administrators and end-users are available for the following Web-based applications:

- Enterprise Fax Manager Web Edition (*see the RightFax Administrator's Guide*).
- RightFax Certified Delivery (*see the SecureDocs Module Guide*).
- RightFax Web Access (*see the context-sensitive Help included with Web Access*).

## IIS server requirements

Many of the software requirements for RightFax Web applications are provided on RightFax Product Suite DVD. During Setup, a wizard will perform a system check for required third-party

components (shown below) and if necessary, will install them. Some components, such as Microsoft service packs and Microsoft Internet Information Services are not provided.

- Microsoft .NET Framework 2.0\*
- Microsoft Data Access Components 2.8\*
- Microsoft Internet Explorer 6 SP1 or later
- Microsoft Internet Information Services (IIS) 6.0 SP2 or later
- Microsoft Visual C++ 2005 runtime components\*
- Microsoft Windows Installer 3.1\*

*\*Installed during RightFax setup*

### Additional IIS server requirements and information

During the installation of RightFax Web applications, Setup provides the option to configure Web (IIS) settings. A complete list of these settings is provided below.



**Important** If you do not allow Setup to configure RightFax Web settings, you must make these changes yourself. For information on advanced, manual configuration of IIS settings, see [“Manual setup of Web applications”](#) on page 31.

- An IIS virtual directory for each Web application is added under the IIS Default Web Site. The default name of each site is as follows: *WebEFM* (Enterprise Fax Manager Web Edition), *SecureDocs* (RightFax Certified Delivery), *RflpcSoapServer* (RightFax SOAP Server), and *WebUtil* (RightFax Web Access).
- All RightFax Web sites are set to anonymous authentication.
- **ASP.NET** is registered as Web service extension.
- **Active Server Pages, ASP.NET, and ISAPI Extensions** are enabled. In IIS 6, this is a global change. In IIS 7, this is a per-site setting. If using IIS 7, Setup will enable these options only at the virtual directory level. ISAPI Extensions are not required by Certified Delivery and will not be enabled during Certified

Delivery Setup.

- IIS directory permissions for each virtual directory are set to **Scripts and Executables, Read and Execute and Browse**.
- All RightFax virtual directories are set to use ASP.NET 2.0 or later.

### Browser requirements

- Pop-up blockers should be disabled on all Internet Explorer clients.
- Windows User Account Control (available with Windows Vista and Windows Server 2008) must be disabled.
- Annotating text with RightFax Web Access requires a change to the default Internet Explorer 7 security settings.
  1. Open the Internet Explorer 7 Internet Properties.
  2. Click the **Security Tab > Internet > Custom Level**.
  3. Under the **Miscellaneous** section, enable the option to **Allow websites to prompt for information using scripted windows**.
  4. When finished, click **OK**.

## Running the Web Applications Install

To ensure that your installation goes smoothly and to avoid unnecessary delays, it is important to perform each step in the installation completely and correctly before proceeding to the next step.

1. Log on to an IIS server using a Windows account that is a member of the domain and local Administrators group.
2. Insert the RightFax Product Suite DVD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the DVD and run **Setup.exe**. The RightFax Product Suite Setup wizard opens.



3. RightFax 9.4 requires Microsoft .NET Framework 2.0 and Windows Installer 3.1. If this software is not installed on your system, Setup will prompt you to install it. To install, click **OK**. To cancel Setup and install .NET Framework 2.0 and Windows Installer 3.1 yourself, click **Cancel**.
4. Review the welcome screen and click **Next**.
5. Carefully read and accept the license agreement and click **Next**.
6. Setup can check for RightFax updates and other late-breaking information. To check for updates, verify you have an active HTTP connection and click **Check for Updates**. If updates are found, follow the instructions in the **Result** section. To skip the update check and continue with Setup, check the box next to **Do not check for updates** and click **Next**.
7. Select the components for this install. A *Typical Web Server* installs Web Access and Enterprise Fax Manager Web edition. Certified Web Delivery and SOAP Server are not installed. To create a custom set of Web-based features to install, click **Custom**. After choosing your feature set, click **Next**.



**Tip** The software product license cards that are included with your RightFax software package will contain your licensed features.

8. The **Preview Requirements** step lists third-party software required by your chosen features and also lists the status of setup operations. Software that must be installed will have a status of *Must Install*. To continue, click **Next**.
9. To apply your settings and install required third-party software, click **Apply**. This may take several minutes. When finished, click **Next**.
10. Choose your RightFax installation folder and click **Next**.
11. To begin installing RightFax software, click **Apply**. This may take several minutes.
12. The third and final phase of Setup guides you through the configuration of RightFax settings. To continue, click **Next**.

13. Setup can configure Microsoft Internet Information Server settings associated with the RightFax web applications you have chosen to install. These settings include the creation of virtual directories, enabling web service extensions, and setting access permissions. Alternatively, you may skip this step and perform this advanced configuration yourself. Choose your setup option and click **Next**.

14. Type the name of your RightFax server and click **Next**.

15. To complete Setup, click **Apply** followed by **Finish**.



**Note** If Setup fails to apply IIS settings, you must configure Web application settings in IIS. For more information, see the next section.

## Manual setup of Web applications

This section outlines advanced configuration of IIS settings required by all RightFax Web applications and assumes you have a working knowledge of Microsoft Internet Information Server.

1. Install RightFax Web applications using the instructions on [page 30](#). At step 13, choose **Do Not Configure Web Settings**.
2. Register **ASP.NET** as a Web Service Extension. To do this, click **Start > Run**. Type `cmd` and press **Enter**. Type the following at the command prompt, and press **Enter**:

`C:\Windows\Microsoft.NET\Framework\v2*\aspnet_regiis -i`  
where `v2*` is the most recent version of .NET Framework 2.x on your server.

3. Create a new virtual directory for each RightFax Web application you have installed. Configure each site with the following attributes:
  - Create a unique site alias. Captaris recommends using the default names of *WebEFM* (Enterprise Fax Manager Web Edition), *SecureDocs* (RightFax Certified Delivery), *RflpcSoapServer* (RightFax SOAP Server), and *WebUtil* (RightFax Web Access).
  - The path to all RightFax Web content is installed during Setup to the *\RightFax\WebApps* folder. Each application is represented by its own folder, e.g., WebEFM.
  - Set directory permissions to: **Read, Run Scripts, Execute, and Browse.**
4. Enable **Active Server Pages, ASP.NET, and ISAPI Extensions** for all RightFax Web sites.
5. Set the ASP.NET version for each RightFax virtual directory to version 2.0 or later.
6. If using Certified Delivery, **Parent Paths** must be enabled either for the Default Web Site as a whole, or for the SecureDocs virtual directory which appears after the installation of Certified Delivery.
7. Restart the Default Web Site.

## URL for RightFax Web applications

In each example *ServerName* is the machine name of the IIS server where Web applications are installed.

- <http://ServerName/WebEFM> (Enterprise Fax Manager Web Edition)
- <http://ServerName/SecureDocs> (RightFax Certified Delivery)
- <http://ServerName/WebUtil> (RightFax Web Access)

## Configuring Web Access Session Timeout Period

Web Access will end its IIS session after 20 minutes of inactivity. To increase or decrease the session timeout period you must edit the RightFax web.config file and modify related IIS settings.

1. Log on to the IIS 6 server where you have installed RightFax Web Access.
2. Open the web.config file in a text editor and search for the entry **timeout=**.
3. Decrease or increase the number in minutes as needed.
4. Save and close the web.config file.
5. Open IIS Manager and expand the **Application Pool** virtual folder.
6. Right-click DefaultAppPool and choose properties.
7. Click **Recycling** and verify the Recycle worker processes field contains a number (shown in minutes) that is equal to or greater than the number you have entered in the web.config file in step 3. This option can also be disabled.
8. Click **Performance** and increase or decrease the value next to the option; *Shutdown worker processes after being idle for (time in minutes)*. This option can also be disabled.
9. To complete the process, click **OK**.

## Configuring RightFax Web Delivery

The RightFax Web Delivery feature uses Web Access and an e-mail gateway to help minimize the consumption of disk space on a e-mail server (fax images files are stored on the RightFax server not an e-mail server).

When Web Delivery is configured, users receive an e-mail notification that includes a clickable URL to a fax. When clicked, the fax opens in Web Access. If your e-mail client application does

not support hypertext links, users can copy the URL and paste it in the browser address box. The URL can be included in the e-mail notification of both sent and received faxes.

Windows authentication can be used to ensure that the fax and Web Access can only be opened by the intended recipient. If Windows authentication is not used, the recipient will be prompted to enter a RightFax user ID and password.

If a user wants to forward a fax for which they have received e-mail notification, the user should forward the fax from Web Access. This ensures that the new recipient can open the fax.

This method of notification is intended to work only within the network served by your RightFax server.

**To implement this feature, complete the following tasks:**

1. Set up Windows authentication, if needed.
2. Add the Web Access URL to the Windows registry ([page 33](#)).
3. Configure users to receive fax notifications in e-mail ([page 33](#)).
4. Configure notification messages ([page 34](#)).

**To add the Web Access URL to the Windows registry**

1. Log on to the RightFax server as an administrator.
2. Open the Windows registry editor.
3. Browse to HKLM\Software\RightFax\Faxserver.
4. Create a new REG\_SZ entry called **WebClientServer**.
5. Edit this entry to contain the URL to Web Access. exactly as is shown substituting *Server Name* with the IIS server where Web Access is installed.

`http://ServerName/WebUtil/`

6. Close Windows registry editor.

**To add the Web Access URL to the Windows registry in a RightFax Collective**

If you are using RightFax Collective that is advertising its common network name using Microsoft Network Load Balancing or some other IP load balancer, you must create the following registry modifications.

1. Log on to the RightFax server as an administrator.
2. Open the Windows registry editor.
3. Browse to HKLM\Software\RightFax\Faxserver.
4. Create a new REG\_SZ entry called **WebLinkURL**.
5. Edit this entry to contain the URL to Web Access exactly as is shown below substituting *Server Name* with the IIS server where Web Access is installed and *RFServer* with the advertised network name for the RightFax Server Collective.

`http://ServerName/WebUtil/default.aspx?Action=ShowDocument({handle})&Server=RFServer.`

6. Close Windows registry editor.

**To configure users to receive fax notifications in e-mail**

Configure each user who should receive e-mail notification of a fax with a URL.

1. In Enterprise Fax Manager, double-click a user to edit. The **User Edit** dialog box opens.
2. On the **Inbound Routing** tab, in the **Routing Type** box, select **Fax Mailbox**.
3. On the **Notification** tab, in the **Notification Method** box, select the e-mail gateway you have installed, such as Microsoft Exchange.
4. In the **Notification Address/Info** box, type the user's e-mail address.

5. The user can receive a link for received faxes, sent faxes, and unsuccessfully sent faxes. To activate the e-mail notification of these faxes, click to select one or more of the following check boxes. These faxes will be stored only on the RightFax server.

Table 5a Type of Fax that Should Include a Link

Type of fax	Select this check box
Received	When initially received
Sent	Fax is successfully sent
Unsuccessfully sent	Error encountered; fax will be abandoned

### To configure notification messages to include URLs

For the URLs to appear in notification messages, you must modify the notification messages on the RightFax server.

1. In Enterprise Fax Manager, select the RightFax server to modify.
2. Under **Service Name**, double-click **RightFax Server Module**. The **Server Configuration** dialog box opens.
3. On the **Custom Messages** tab, modify one or more of the notification messages using the following variables. The maximum length of a notification message is 200 characters, including the URL and the message text. The maximum length of the URL is 80 characters.

Table 5b Defining Custom Messages

Message	Variable	Example
New fax	~6	You have received a fax; click here to view it ~6

Table 5b Defining Custom Messages

Message	Variable	Example
Successful send	~4	Your fax was sent; click here to view it ~4
Too many retries	~9	Your fax was not sent; click here to view it ~9

■ ■

## Chapter 6

# Installing RightFax Client Applications

RightFax software includes the following client applications that let RightFax users send and receive faxes via the RightFax server and also let administrators manage RightFax servers from remote computers:

- "Enterprise Fax Manager" (page 35)
- "RightFax Print Driver" (page 36)
- "SOAP client" (page 36)
- "FaxUtil" (page 36)
- "Outlook Advanced Fax Extensions" (page 36)
- "MAPI Print Driver" (page 36)
- "VIM Print Driver" (page 37)
- "AutoReply Client" (page 37)

These client applications can be installed in the following languages:

- English
- French
- French Canadian
- German
- Italian
- Japanese
- Portuguese
- Simplified Chinese
- Spanish
- Arabic (RightFax Web Access Client only)

Before installing the RightFax client applications to users' computers, you should identify which applications are appropriate for each user and then install only those applications.

### Enterprise Fax Manager

Enterprise Fax Manager is a Windows-based application that provides RightFax administrators access to all RightFax servers on the network. Enterprise Fax Manager lets administrators manage all aspects of the RightFax server including managing users and other database objects, starting and stopping RightFax services, and monitoring server statistics. This application should be installed on

all computers from which RightFax administrators will be managing the servers. For information about running Enterprise Fax Manager, refer to the *RightFax Administrator's Guide*.

A Web-based version of Enterprise Fax Manager (Enterprise Fax Manager Web Edition) can be installed on a Microsoft IIS server on your network. This version of Enterprise Fax Manager provides nearly all of the same functionality as the Windows version, but is accessible both locally and remotely via the Web using any Web browser. This version of Enterprise Fax Manager is not installed as a client application. For information on installing Enterprise Fax Manager Web Edition, see ["Installing RightFax Web Applications"](#) on [page 29](#).

### RightFax Print Driver

The RightFax Print Driver lets users fax documents directly from the applications used to create them (such as Microsoft Word.) The print driver also installs a RightFax tray icon in the Windows taskbar that lets users configure fax options, run fax client applications, send faxes, and set the default printer. This application should be installed on all computers from which RightFax users will be sending and receiving faxes.

### SOAP client

The SOAP client installation lets RightFax users use the Print-to-Fax feature from any computer with an Internet connection. The SOAP server must be installed on an IIS server running version 9.4 of RightFax Web Access. The SOAP client then accesses RightFax through that server. This provides RightFax functionality to home-office or other remote employees who do not have direct access to your organization's network. There are two components to the SOAP installation: install the SOAP server on the IIS computer running RightFax Web Access, and then install the SOAP client on the remote client computers.

### FaxUtil

FaxUtil is a Windows-based fax mailbox tool that lets users send, receive, view, edit, and manage faxes. This application should be installed on all computers from which RightFax users will be sending and receiving faxes, unless you will be installing alternative client applications such as the RightFax Web Client, the Client for Microsoft Outlook (described in the *RightFax Gateway for Microsoft Exchange Guide*), or the Lotus Notes Client (described in the *RightFax Gateway for Lotus Notes Guide*). For information about running FaxUtil, refer to the FaxUtil online help which is installed with FaxUtil.

A Web-based version of FaxUtil (RightFax Web Access) can be installed on a Microsoft IIS server on your network. This version of FaxUtil provides all the same functionality as the Windows version, but is accessible both locally and remotely via the Web using any Web browser. This RightFax mailbox tool is not installed as a client application. For information on installing the RightFax Web Client, see ["Installing RightFax Web Applications"](#) on [page 29](#).

### Outlook Advanced Fax Extensions

The Outlook Advanced Fax Extensions enable advanced fax functionality in your users' Outlook mailboxes. This application should be installed on computers running Microsoft Outlook only if you will be installing the RightFax Gateway for Microsoft Exchange. For information about using the Advanced Fax Extensions, refer to the *RightFax Gateway for Microsoft Exchange Guide*.

### MAPI Print Driver

The RightFax MAPI (Messaging Application Programming Interface) Print Driver lets fax users send fax images as e-mail attachments using MAPI-compliant applications such as Microsoft Outlook, Microsoft Mail, and Novell Groupwise. When the user prints a document using this print driver, a MAPI-compliant e-mail application window opens with the document attached as a TIFF file. The e-mail message can then be addressed and sent. This

application should be installed on all computers to which you want to provide this functionality. Before installing this application, make sure that a PCL print driver is installed on the client's computer.

MAPI printing is supported only Windows XP x86 workstations.

### VIM Print Driver

The RightFax VIM (Vendor Independent Messaging) Print Driver lets fax users send fax images as e-mail attachments using VIM-compliant applications such as Lotus Notes and Lotus cc:Mail. When the user prints a document using this print driver, a VIM-compliant e-mail application window opens with the document attached as a TIFF file. The e-mail message can then be addressed and sent. This application should be installed on all computers to which you want to provide this functionality. Before installing this application, make sure that a PCL print driver is installed on the client's computer.

VIM printing is supported only Windows XP x86 workstations

### AutoReply Client

The AutoReply service monitors one or more RightFax mailboxes for inbound faxes and automatically faxes a response to the sender based on each sender's caller service identification (CSID) number. The AutoReply Client lets administrators configure the AutoReply service from any computer on the network. This application should be installed on all computers from which RightFax administrators will be managing the AutoReply service. For information about AutoReply, refer to the *RightFax Administrator's Guide*.

## RightFax Client Computer Requirements

RightFax client applications for this version can be installed only on computers running the following operating systems:

- Microsoft Windows Vista x86 and x64 versions
- Microsoft Windows XP Professional SP2 or later x86 and x64 versions

The minimum hardware requirements for the client computer vary depending on the operating system you are running. See Microsoft documentation for Windows hardware requirements.

### Additional Client Computer Requirements

- Microsoft .NET Framework 2.0 or later\*
- Microsoft Visual C++ 2005 runtime components\*

\* *Installed during Setup*

## Upgrading the RightFax Client Applications

Because newer versions of the RightFax client applications may not be compatible with older versions of the RightFax server, all of the RightFax servers on your network that will be accessed by fax users should be upgraded before upgrading the client applications.

To upgrade existing client applications, complete the steps for client installation ([page 39](#)).



**Warning** In FaxUtil versions 8.0 and later, users can create nested folders, which is not supported in earlier versions. In an environment where users can switch between FaxUtil version 8.0 (or later) and earlier versions, any folders created in the later version of FaxUtil won't appear in earlier versions of the client. Similarly, folders created in earlier versions of FaxUtil will not appear in FaxUtil 8.0, however, folders created in earlier versions of FaxUtil will appear in FaxUtil versions 8.5 and later in the All folder.

## Before You Begin

By default, the RightFax client installation will use the first compatible printer driver it finds to create the RightFax Print Driver. If no compatible printer driver is found, RightFax will install one automatically.



**Note** If RightFax installs a printer driver automatically, this driver and its associated files will not be removed if RightFax is uninstalled. In a Microsoft Windows XP and Vista installation, the printer driver files reside at `\Windows\System32\Spool\Drivers\W32X86\3` and include the following:

- `HPLJ5.BUD`
- `HPLJ5.GPD`
- `PCL5ERES.DLL`
- `STDNAMES.GPD`
- `TTFSUB.GPD`
- `UNIDRV.DLL`
- `UNIDRV.HLP`
- `UNIDRVUI.DLL`
- `UNIRES.DLL`

In addition to requiring one of these printer drivers, all RightFax client computers must have network access to the HPFAX print queue on the RightFax server.

### Decreasing FaxUtil load time

The time required for each user to load the FaxUtil client application depends largely on the number of RightFax users configured on the RightFax server that FaxUtil is accessing. If the RightFax server contains a large number of users, FaxUtil may be noticeably slow to load.

If the number of users configured on the RightFax server results in slow FaxUtil load times, you can create a registry entry on client computers that disables the automatic loading of users when FaxUtil is run. The loading of user records will occur only if a user performs actions in FaxUtil that require it.

You can disable the loading of two types of user: administered users and unprotected users.

- Administered users are users that appear in a RightFax administrator's or group administrator's FaxUtil mailbox.
- Unprotected users are users who have the **Unprotected mailbox** permission set in their user profiles. These users appear in all other FaxUtil user lists as though they had delegated everyone else to allow them to access their fax mailboxes.

For RightFax administrators, disabling the loading of both administered and unprotected may be necessary. For all other FaxUtil users, it is only necessary to disable the loading of unprotected users.

### To disable the loading of administered users

To disable the loading of administered users in FaxUtil on startup, close FaxUtil and then add a REG\_DWORD value called `LoadAdministeredUsers` to `HKEY_CURRENT_USER\Software\RightFAX Client\FUW32` and set the value data to 0 (zero).

### To disable the loading of unprotected users

To disable the loading of unprotected users in FaxUtil on startup, close FaxUtil and then add a REG\_DWORD value called `LoadUnprotectedUsers` to `HKEY_CURRENT_USER\Software\RightFAX Client\FUW32` and set the value data to 0 (zero).



### To automatically disable user loading for new FaxUtil users

These REG\_DWORD values can also be applied for all new FaxUtil users on a particular computer. Modify the Windows Registry to add the REG\_DWORD values described above to HKEY\_LOCAL\_MACHINE\Software\RightFax Client\FUW32. When users run FaxUtil for the first time, they will be automatically configured to disable the loading of users.

## Installing the Client Applications

Follow these steps to install the client applications directly from the RightFax software DVD.

### To install the RightFax client applications

1. Log on to the computer using a Windows account that is a member of the domain and local Administrators group.
2. Insert the RightFax Product Suite DVD. Browse the DVD, open the **Client** folder, and run **Setup.exe**. The RightFax Product Suite Setup wizard opens.
3. RightFax 9.4 client applications require Microsoft .NET Framework 2.0 or later. If this software is not installed on your system, Setup will prompt you to install it. To install, click **OK**. To cancel Setup and install .NET Framework 2.0 yourself, click **Cancel**.
4. Review the welcome screen and click **Next**.
5. Carefully read and accept the license agreement and click **Next**.
6. Setup can check for RightFax updates and other late-breaking information. To check for updates, verify you have an active HTTP connection and click **Check for Updates**. If updates are found, follow the instructions in the **Result** section. To skip the update check and continue with Setup, check the box next to **Do not check for updates** and click **Next**.

7. Select the components for this install. A *Typical Client* includes FaxUtil, RightFax print driver, and Outlook fax extensions. An *Admin Client* install Enterprise Fax Manager and FaxUtil. To create a custom set of features to install, click **Custom**. After choosing your feature set, click **Next**.
8. The **Preview Requirements** step lists third-party software required by your chosen features and also lists the status of setup operations. Software that must be installed will have a status of *Must Install*. To continue, click **Next**.
9. To apply your settings and install required third-party software, click **Apply**. This may take several minutes. When finished, click **Next**.
10. Choose your RightFax installation folder and click **Next**.
11. To begin installing RightFax software, click **Apply**. This may take several minutes.
12. The third and final phase of Setup guides you through the configuration of RightFax settings. To continue, click **Next**.
13. Type the name of your RightFax server and click **Next**.
14. To complete Setup, click **Apply** followed by **Finish**.

## Installing the SOAP Client

When you install the SOAP server on the Web Access IIS server, the SOAP client installation file *RightFax Client for the Web.exe* is installed in the Program Files\RightFax\WebApps\WebUtil\Client Install folder. You must send this file via e-mail, copy it to a removable storage medium, or otherwise make it available to the remote clients. Follow these steps on each remote computer to install the SOAP client:

1. Log on to the workstation as an administrator
2. Double-click the RightFax SOAP client installation file *RightFax Client for the Web.exe*. The install wizard opens.

3. At the welcome screen, click **Next**.
4. Enter the Web address of the SOAP server (e.g., `www.MyCompany.SOAPServer.com`) and the machine name of the RightFax server when prompted. When finished, click **Next**.
5. To begin the installation, click **Install**. A status bar indicates the progress of the installation.
6. When the installation is complete, click **Finish**.

### Using the SOAP Client

After the RightFax SOAP client is installed, a RightFax tray icon will appear in the computer's notification area in the lower right corner of the desktop. Users can access RightFax Print-to-Fax features through the shortcut menu from this icon. Users can also print documents directly to the RightFax Fax Printer (a new printer type that the client installation adds), which prompts for fax addressing information and transmits the document via the RightFax server.

## Installing the Client Applications from a Command Line

The RightFax client applications can be installed from an MS-DOS prompt in a Command Prompt window. You can:

- Install RightFax client applications for the first time.
- Modify an existing installation of a client application to add or remove (uninstall) one or more client applications.
- Remove (uninstall) all of the client applications

Following are examples of common operations that can be performed. Note that these examples wrap to fit on this page. The command line must not include a carriage return.

Installing a RightFax client application for the first time:

```
Setup.exe /unattended=true /allowShutdown=true
/add="FaxUtil,EFM" /rightFaxServer="myserver"
```

Modifying an existing installation:

```
Setup.exe /modify /unattended=true
/allowShutdown=true /add="faxctrl"
```

Removing one RightFax client application from a server:

```
Setup.exe /modify /unattended=true
/allowShutdown=true /drop="faxctrl"
```

Uninstalling all RightFax client applications from a server:

```
Setup.exe /remove /unattended=true
/allowShutdown=true
```

### Before You Begin

Copy the Setup.exe to a network file location from which you will run the command line. You have the following options:

- Copy the RightFax product suite Setup.exe from the DVD to the network. (Only the client applications can be installed from the command line.)
- Copy the Setup.exe for client applications from the DVD to the network. The client Setup.exe is located on the RightFax product suite DVD in the \Client folder. The file size is 105 MB.

If you use the Setup.exe for client applications, you can further reduce the file size of the Setup.exe with the following options:

- If the destination client computer operating systems are all 32-bit, you can reduce the Setup.exe to 60 MB. Delete the file \Client\Prereqs\NetFx64.exe.
- If .NET 2.0 is already installed on the destination client computers, you can reduce the Setup.exe to 32 MB. Delete the file \Client\Prereqs\dotnetfx2.0.

The command line install is not intended for installing client applications on the RightFax server.

## Specifying the Level of User Interaction

Setup.exe runs with a fully interactive wizard, but it also can be run with minimal or no user interaction.

To check for success or failure, see Exit Codes later in this section.

Command	Description
/unattended=true	Setup.exe displays a progress bar and will not require user input except in the case of an error. In the case of an error, Setup.exe will display a message explaining the error. The user must click OK to continue.
/quiet=true	Setup.exe runs with no user interaction.

## Specifying the Location of the Setup.exe File

You must run the command in the directory where the RightFax Setup.exe is copied, or you must specify the full path to Setup.exe.

Command	Description
/manifest="file_path"	The location can be any valid path, such as "D:\\" or "\\server\share".

## Specifying the Installation Mode

To modify an existing installation or to uninstall all of the client applications, you must specify the installation mode.

Command	Description
/modify	Modifies an existing installation to add or remove RightFax client applications. This command must be used with the Add or Drop command. This command cannot be used to remove all features.
/remove	Removes all RightFax client applications from the system. This command cannot be used to add or remove specific features.

## Specifying the RightFax Client Applications to Install

With the Add command, you can specify one or more RightFax client applications to add. This option applies when you are installing features for the first time or when you decide to add RightFax client applications at a later time (modifying an existing installation).

For available names, see ["Client Application Names"](#).

Command	Description
/add="name1, name2, ..."	Feature names must be separated by commas.

## Specifying the RightFax Client Applications to Remove

With the Drop command, you can remove one or more client applications at a time. For available names, see ["Client Application Names"](#).

Do not use this option to remove all of the client applications. To remove (uninstall) all client applications, use the /remove command. For instructions, see [“Specifying the Installation Mode”](#).

Command	Description
/drop="name1, name2"	Feature names must be separated by commas.

### Specifying the RightFax Server

Some commands require the name of a RightFax server to which the client application will connect when it is first installed.

Command	Description
/rightFaxServer="My Server"	"MyServer" is the name of the RightFax server.

### Shutting Down RightFax Processes

Before running Setup.exe, RightFax applications should be shut down and then restarted after Setup.exe is finished. You can stop and start the applications manually, or Setup.exe can perform these operations for you.

Command	Description
/allowShutdown=true	None.

### Client Application Names

The client applications must be specified with these names.

Command	Description
FaxUtil	RightFax FaxUtil
EFM	RightFax Enterprise Fax Manager
FaxCtrl	RightFax Print Driver
Outlook	RightFax Outlook Advanced Fax Extensions
MAPI	MAPI Print Driver
VIM	VIM Print Driver
AutoReply	RightFax AutoReply

### Exit Codes

Setup.exe returns an exit code. The exit codes can be utilized in a batch file to display the exit code when Setup.exe is finished or to branch to another operation. Use the errorlevel command in the batch file to utilize the exit code.

Exit Code	Description
0	Success.
1	No errors, but a reboot is required to finish the operation.
-1	An error occurred.

## Configuring Windows 2003 and Windows 2008 Terminal Services to Support RightFax Client Sessions

RightFax client applications can be installed on and run in multiple sessions from a Windows Server 2003 or Windows Server 2008 using terminal services. Running the RightFax client in the Windows terminal server environment requires only one client install directly on the server configured for terminal services, but supports an unlimited number of simultaneous client sessions.

This installation also supports (but does not require) Citrix MetaFrame.

### To install the RightFax client using Windows 2003 Terminal Services

1. Log on to the Windows 2003 server using an account with administrative access.
2. Insert the RightFax Product Suite DVD. Close the RightFax splash screen if autorun is enabled.
3. On the Windows Server configured to use terminal services, open Add/Remove Programs in the Windows Control Panel.
4. Choose **Add New Programs**.
5. Select the 'CD or Floppy' and click **Next**.
6. Browse to the Client\setup.exe file and click **Open** followed by **Next**.
7. Install the RightFax client according to the instructions in the section ["Installing the Client Applications"](#) on [page 39](#).

### To install the RightFax client using Windows 2008 Terminal Services

1. Log on to the Windows 2008 server using an account with administrative access.
2. Install the RightFax client application according to the instructions in the section ["Installing the Client Applications"](#) on [page 39](#).
3. Open Terminal Services RemoteApp Manager.
4. From the Action menu choose **Add RemoteApp Programs**. The RemoteApp Wizard opens.
5. At the welcome screen, click **Next**.
6. In the **RemoteApps Programs** list, click the box next to each RightFax client application you wish to make available over terminal services. When finished, click **Next**.
7. Review your application settings and click **Finish**.

## Troubleshooting the Client Installation and Configuration

The following table lists the most common error messages that may appear after installing the RightFax client applications with the probable causes and solutions.

Error or error message	Possible solutions
The server is unavailable	Verify that the RightFax Database module and RightFax RPC Server module services are running on the RightFax server.

Error or error message	Possible solutions
The common network protocol being used is not routed between LAN segments	<ul style="list-style-type: none"> <li>• Try running a client on the same LAN segment as that of the server. Modify the appropriate bridge or routers to route the proper protocols.</li> <li>• Update the server and clients to use a routed protocol.</li> <li>• If the server machine has multiple network adapters installed, try removing all but one of the adapters and allow other routers on the network to route the packets.</li> </ul>
The Windows server running RightFax is not configured to support NetWare clients	Verify that the Windows server is running gateway services for NetWare and the SAP Agent. Verify that the IPX/SPX transport is properly configured using the Network program in Windows Control Panel.
The NetWare clients are using different frame types than the Windows NT server	On the client computer, the frame type is in the Link Driver section of the NET.CFG. On the Windows server, the frame type is in the configuration of the NWLink IPX/SPX transport object in the Network program in Windows Control Panel. If the Windows server must support more than one frame type, ensure that the internal network number is a unique, non-zero number and that the <b>Auto Frame Type Detection</b> is disabled.

Error or error message	Possible solutions
There is no SAP agent computer accessible to both the client and server machines	<ul style="list-style-type: none"> <li>• Verify that the client and server machines can log on to a NetWare server. Verify that the SAP Agent is installed on the Windows server.</li> <li>• Verify that the client and server are on the same network segment and that the router between the segments is configured to transport SAP type 0x640 messages.</li> </ul>
User ID was not found in database	RightFax has its own list of fax users and the user ID specified is not on that list. You can use Enterprise Fax Manager to add users, either individually or by reading them from the domain or file server. When RightFax is first installed, the users "Administrator" and "Default" are loaded. Initially, neither user ID has a password.
The password supplied is incorrect	You must use the correct password for the user specified. If the user has lost his password, a RightFax administrator can re-set the password in Enterprise Fax Manager.

Error or error message	Possible solutions
The RightFax fax addressing dialog box opens, but nothing appears in FaxUtil	<ul style="list-style-type: none"> <li>• You are using a different user ID than expected. Check the RightFax Client program in Control Panel to see what user ID the software is using.</li> <li>• In Windows, the port setting for the fax printer may be incorrect. Complete the <b>Configure Fax Printers</b> dialog box according to the instructions in <a href="#">“Configuring Windows 2003 and Windows 2008 Terminal Services to Support RightFax Client Sessions”</a> on page 43.</li> </ul>

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## Chapter 7

# Installing and Configuring the Shared Services Module

### Overview

The capacity of RightFax servers can be multiplied by combining two or more servers that share a common RightFax database (known as a *server collective*). This is accomplished by installing and configuring multiple RightFax servers to share a database and corresponding resource folders. Benefits of the Shared Services Module may include:

- Increased throughput for sending faxes due to internal load sharing among RightFax services.
- Multiple RightFax servers share all SQL stored data (e.g., users, delegates, phonebook entries, distribution lists, and document data such as fax status).
- All received faxes are stored on the SQL server and are available to all clients in the network.
- Redundant data is eliminated thus saving storage space.
- Remote RightFax services can be shared by multiple machines to balance the workload from many RightFax clients.

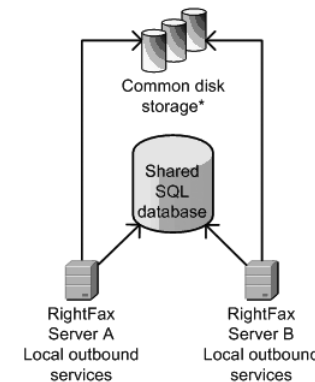


**Note** This feature is only available on RightFax Enterprise Servers and must be purchased separately.

### Server Topology

The following examples describe some basic shared configurations.

Figure 7.1 Two RightFax servers share a SQL database. Common disk storage is used to store shared RightFax resources.



\*Common disk storage:

- SAN
- Network share on file server
- Network access to a local drive on one of the RightFax servers

Figure 7.2 Two RightFax servers share a SQL database. DocTransport services are located on remote servers to off-load processing from the RightFax servers. Dialing rules specify the DocTransport services and RightFax servers from which documents will be sent. Common disk storage is used to store shared RightFax resources.

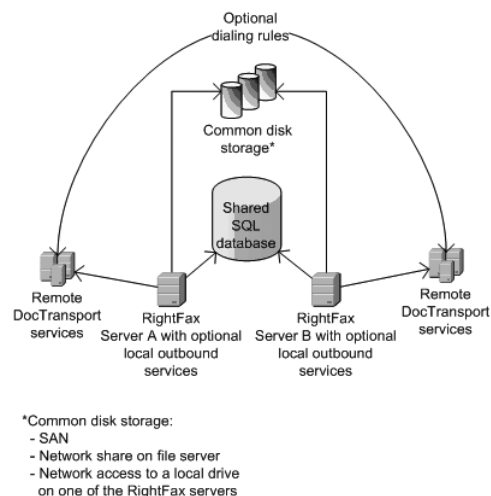


Figure 7.3 Two RightFax servers share a SQL database. DocTransport and WorkServer services are located on remote servers to off-load processing from the RightFax servers. Dialing rules specify the DocTransport services and RightFax servers from which documents will be sent. Common disk storage is used to store shared RightFax resources.

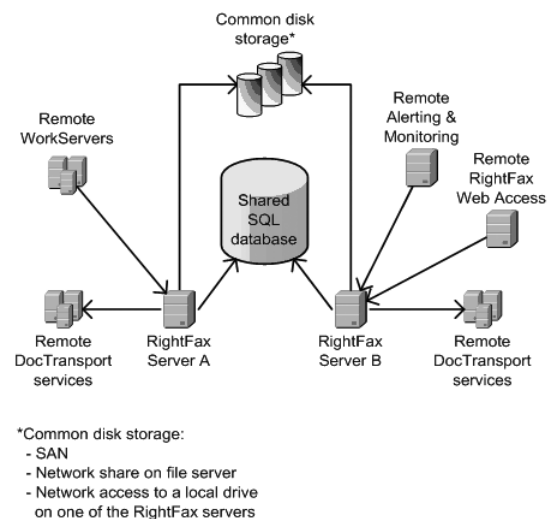
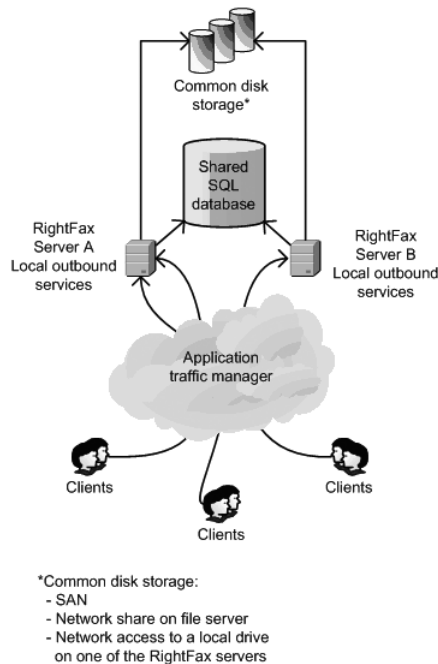


Figure 7.4 Two RightFax servers share a SQL database. Common disk storage is used to store shared RightFax resources. An application traffic manager, such as BIG IP, directs RightFax client traffic to available RightFax servers.



## Geographic distribution of services

While servers can be geographically dispersed over a wide-area network, this configuration has not been tested by Captaris.

## System Requirements

The requirements for RightFax Server environments are described beginning on [page 9](#), “[Hardware and Software Requirements](#)”. In addition to these requirements, you must also possess the following:

- A minimum of two RightFax servers capable of network communication. Each of these must be licensed for the ‘Server Collective’ feature.
- A maximum of four RightFax servers joined to the collective. Each of these must be licensed for the ‘Server Collective’ feature.
- An existing SQL Server. SQL Express installations are not supported.
- IP v6 environments must use host names to resolve IP addresses. IP v6 IP addresses are not supported.

## Installing RightFax Servers to Share a SQL Database

To install multiple RightFax servers that share a SQL database, complete the general steps below.

1. If you are upgrading, print or make a copy of the Windows registry key HKEY\_LOCAL\_MACHINE\Software\RightFax so that you have a copy of any changes that have been made to customize the system. In a typical shared database configuration, customization should be identical on each RightFax server.
2. Install the RightFax server on the first RightFax server computer (described in the next section). During the installation, choose the option to *Create New RightFax Database*.

3. On all additional RightFax servers, run the RightFax server installation. During the installation, choose the option to *Add to Shared Services Database* and point the install to the SQL database that you defined when you installed the first RightFax server.
4. Repeat steps 1 through 3 for each added RightFax server.
5. Configure your RightFax collective using the information provided in this chapter. Additional information about RightFax servers is located in the *Administrator's Guide*.



**Important** In a server collective, each server must have a DocTransport configured for outbound faxing or have dialing rules that specify a fax be sent from a specific server. For information about dialing rules, see the *Administrator's Guide*.

### To install RightFax server software

To ensure that your RightFax server installation goes smoothly and to avoid unnecessary delays, it is important to perform each step in the installation completely and correctly before proceeding to the next step.

1. Log on to the computer using a Windows account that is a member of the domain and local Administrators group.
2. Insert the RightFax Product Suite DVD. If AutoRun is enabled, a menu of install options appears. If AutoRun is not enabled, browse the DVD and run **Setup.exe**. The RightFax Product Suite Setup wizard opens.
3. RightFax 9.4 Setup requires Microsoft .NET Framework 2.0 or later and Windows Installer 3.1. If this software is not installed on your system, Setup will prompt you to install it. To install, click **OK**. To cancel Setup and install .NET Framework 2.0 and Windows Installer 3.1 yourself, click **Cancel**.



**Note** RightFax server software requires .NET 3.5. This software is installed during step 12. Optionally, you may cancel Setup, install .NET 3.5, and re-run RightFax Setup.

4. Review the welcome screen and click **Next**.
5. Carefully read and accept the license agreement and click **Next**.
6. Setup can check for RightFax updates and other late-breaking information. To check for updates, verify you have an active HTTP connection and click **Check for Updates**. If updates are found, follow the instructions in the **Result** section. To skip the update check and continue with Setup, check the box next to **Do not check for updates** and click **Next**.
7. Select the components for this install. A *Typical Server* includes all core server components, but does not include fax board and FOIP drivers, RightFax Web Access, and Administrative Utilities. To install fax board drivers, click the box next to *Include fax board and FOIP drivers*. To create a custom set of features to install, click **Custom**. After choosing your feature set, click **Next**.



**Tip** The software product license cards that are included with your RightFax software package will contain your licensed features.

8. The **Preview Requirements** step lists third-party software required by your chosen features and also lists the status of setup operations. Software that must be installed will have a status of *Must Install*. To continue, click **Next**.
9. If your server does not already have Microsoft Message Queuing installed, Setup will prompt you to install it. Select your option and click **Next**.
10. Select the option to:
  - **Use an existing SQL Server**. Select this option to add a RightFax database instance to an existing SQL server running on your network. To continue, click **Next**.

11. RightFax requires TCP ports 10520, 10521, 10062, 34987, and 34988. Setup can reserve these ports for exclusive use by RightFax. To allow setup to reserve these ports, enable the **Reserve Ports** option and click **Next**. If you do not reserve these ports, some RightFax services may not start.
12. To apply your settings and install required third-party software, click **Apply**. This will take several minutes. When finished, click **Next**.
13. Choose your installation folder and click **Next**.
14. To begin installing RightFax software, click **Apply**. This may take several minutes.
15. The third and final phase of Setup guides you through the configuration of RightFax settings and will enable your feature set using the Captaris product licensing utility. To continue, click **Next**.
16. Enter a Windows account to run RightFax services. This account must be a member of the local administrators group and must have the right to logon as service on the local computer. Click **Browse** to load and select a user account. Use the **Test Account** button verify account credentials. When finished, click **Next**.



**Note** If you will be accessing files from or printing to Novell queues on a NetWare volume, the service account must also exist in Novell.

17. Choose the option to **Create New RightFax Database** and click **Next**.

18. Setup must execute SQL write and create statements that require elevated account permissions. This account is required only for Setup and is neither saved nor used by RightFax. Required SQL statement permissions are as follows:

- Create database
- Create table
- Create procedure
- Create view
- Create rule
- Create default

When finished, click **Next**.

19. Enter your SQL server name, authentication type, and a service account. The information you enter is used to create a SQL connection string for RightFax services. These items are critical and should be documented safely and securely. The service account must have the following permissions on all database objects:

- Select
- Update
- Insert
- Delete
- Execute

If your existing SQL server uses a port number other than the default of 1433, you must specify the port number during Setup. Specify your port in the **Server Name** field using the following syntax:

**For example:**

SQLServer,55123 *or*

SQLServer\MyInstance,55123

When finished, click **Next**.

20. Accept the default name or type a new name for the RightFax database and click **Next**.
21. To launch the Captaris Product Licensing Utility (or PLU) and activate RightFax 9.4, click **Launch Licensing Utility**.
22. Click **Activate** to license your RightFax server via the Internet (see the next paragraph to activate with an existing license file). Enter your e-mail address and SUID. When finished, click **Continue**. Fill-in your information as needed and click **Activate**. To complete activation, read the license agreement and click **Accept**. When finished and to return to Setup, click **OK**.

If you are already in possession of a license file and do not need to activate over the Internet, click **Import** and follow the steps in the **Instructions** section of the PLU. To complete activation, read the license agreement and click **Accept**. When finished, close the PLU and click **OK** to return to setup.

23. To complete Setup, click **Apply** followed by **Close**.

## Providing Access to Shared Resource Folders

Each RightFax Server that is licensed for Shared Services Module (Server Collective) will have a Data Sharing tab within the Server Module configuration.

The fields within the Data Sharing tab represent folders that must be shared among all the RightFax servers within a collective. Share permissions must be given to the account used to run both the Server module and DocTransport module. This account must have full control of these folders. Choosing this account can be done by click the **Select Service Account** button.

The **Remote Service Paths** button allows you to specify UNC paths to the \RightFax\Image directory on Remote DocTransport

servers.

### For Example:

\\<Shared Storage>\RightFax\Image

\\<Shared Storage>\D\$\RightFax\Image

\\<ip address>\RightFax\Image

\\<Shared Storage>\RightFax\Image

A complete list and description of the shared data folders is provided below.

- Image (contains sent and received faxes stored as compressed graphic image files).
- SIG (contains graphic images of user signatures for placement on faxes).
- Papers (contains the names of overlay form files).
- FCS (contains fax cover sheets).
- Outgoing (contains outbound files from all submission methods that are held while being processed into fax images, such as temporary fax queue spool files).
- BFT (contains text files created by the OCR process).
- CmdData (contains transaction files for each fax sent via e-mail or via SecureDocs).

Each of these folders can be located in common disk storage, such as a storage area network (SAN), network share on file server, or network access to a local drive on one of the RightFax servers. The folders must be accessible to all the servers in the shared configuration.

In an IP v6 environment you must use host names to resolve IP addresses. IP v6 IP addresses are not supported.

On each RightFax server, create shared access to these files using the Server Module Configuration > Data Sharing tab. Access to these locations can be expressed differently for each server due to permissions and network layout. Each server can be configured to

use unique paths and user accounts to the same storage location for each type of resource file. Services that directly access image and other files must be given service accounts with access to the specified paths.

**For Example:** Server A may access a local storage area network (SAN) using the path S:\RightFax\Image and use the local system account for RightFax services to access this path. Server B might access the same location remotely using the path \\ServerA\RightFax\Image which would require use of an account that had permissions to access that network path (such as, DomainA\RightFax).

## Configuring Remote Services

The following RightFax services can be installed on remote computers.

- **DocTransport** specifies the methods by which documents will be transmitted and converts and copies received documents to the Image directory.
- **WorkServer** performs processor-intensive functions such as cover sheet generation, print-to-fax conversion, and optical character recognition.

To support remote fax board services, the DocTransport module must be installed on a remote computer. The DocTransport module must be defined on each RightFax server, that is, whether local or remote, DocTransport modules should be discrete and should not be shared. A remote DocTransport module can connect to one RightFax server. It cannot access multiple RightFax servers. For information about installing and configuring Remote DocTransports see the *RightFax Administrator's Guide*.

A remote WorkServer can connect to one RightFax server. It cannot access multiple RightFax servers. Refer to Figure 7.2 on [page 48](#) for a basic illustration of remote services.

## Using Dialing Rules

A fax may be sent by any server using the shared database, not necessarily the one that initially received the job.

To specify that a fax be sent from a specific server, use dialing rules. More information on dialing rules can be found in the *RightFax Administrator's Guide*.

Refer to Figure 3 on [page 48](#) for a basic illustration.

## Performing Daily Maintenance

Maintenance is a collection of daily tasks that help maintain an efficient SQL database. Maintenance tasks may be run by any server on a first come first serve basis.

### Aging and Purging

The aging process evaluates the age of each document on the RightFax server. When a document exceeds the age limit, it is marked for deletion. The marked documents will later be deleted by the purge process. Documents that are marked for deletion can be recovered until they are purged. The age limit for documents is defined for each RightFax user group (in Enterprise Fax Manager). Documents that are marked for deletion can also be queried for reporting purposes.

The purging process removes documents from the SQL database that are both marked for deletion and have reached the configured limit. The purging process deletes the corresponding image files that are stored in the Image directories on the RightFax servers in the shared configuration. One event triggers the aging and purging process.

## Orphan Scanning

The orphan process scans the \RightFax\Image directories on the RightFax servers for fax image files that are not referenced by any document or library document in the SQL database. The image files are called “orphans” because RightFax has no record of their existence and cannot access them.

To manually delete orphan image files from the RightFax server, use the Orphan.exe utility.

## Recovery

The RightFax 9.4 the event queue is stored in the SQL database on the SQL server, and it is shared among RightFax servers. The queue is persistent, that is, it retains its objects and values if the RightFax Server module stops. If one of the RightFax Server modules in the shared configuration stops, then it is not necessary to rebuild the queue. The recovery process is performed daily on the RightFax servers as a fail safe.

## Configuring the Maintenance Processes

Each maintenance process is an event that is stored in the event queue on the SQL server. One RightFax server will perform maintenance when a maintenance event is queued, on a first-come, first-served basis. Aging is performed before purging.

The default time for maintenance to begin is 2 AM. The time is set in the Server Module Configuration > Advanced tab.

## Viewing the Maintenance Logs

Logs of the maintenance process are stored in the \RightFax\Database folder on the server that performed the process. These logs are:

- MaintAgingAndPurging.log
- MaintOrphanScan.log
- MaintDocRecovery.log

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## Chapter 8

# Installing RightFax in a Windows 2003 Cluster



**Caution** *Because the RightFax server software architecture is not fully cluster-aware with replayable transaction logs, some in-process data may be lost during a cluster failover. If failover occurs, faxes that were in-process may fail conversion, may have fax conversion delayed, or may be lost and unrecoverable.*

## Clustering RightFax with Microsoft Windows 2003 Server

This section outlines how to install RightFax 9.4 on an existing Microsoft Windows 2003 Server cluster. This is not meant as a general guide on clustering concepts, configuration, operation, or support. It is recommended that you become familiar with clustering concepts and the Windows 2003 Cluster Service prior to beginning this procedure.

### System requirements

These instructions assume you have installed and configured the Microsoft Distributed Transaction Coordinator service, Windows Message Queuing, and if applicable, Microsoft Office. For more information about installing and configuring the Microsoft Distributed Transaction Coordinator service, Windows Message Queuing, and Microsoft Office, consult Microsoft documentation. Installing RightFax in a Windows Server 2003 cluster environment

requires the following components.

- Two servers, each with network cards, that are on the Microsoft Clustering Hardware Compatibility List (located on the Microsoft Web site).
- A local or remote installation of SQL Server 2000 or 2005. SQL Server Standard Edition cannot be installed on the RightFax cluster.
- An installation of Microsoft .NET Framework 3.5 on both nodes.
- The Windows cluster service must be installed, configured, and operational.
- Windows Application server component with Network Distributed Transaction Coordinator and Message Queuing installed.
- If your organization sends Microsoft Word, Excel, or PowerPoint documents, a local installation of Microsoft Office is required.
- Print services for Unix (if using the Integration Module).

### Supported Windows Operating Systems

- Microsoft Windows Server 2003 Enterprise X86 SP2 or later

### SQL Server requirements

- All versions of SQL Server must be set to Mixed Mode, with SQL authentication enabled.

## Configuring the Cluster Group

All of the clustered RightFax resources must be maintained in a single cluster group to provide failover protection. This group must include a disk resource, a server name resource, an IP address resource, and be configured to use a preferred server to allow fail-back.

The default group created during the cluster service installation, named "Cluster Group," may be used for the RightFax resources. In this case, the quorum drive is typically used as the shared installation drive for the RightFax software. While this approach may add complexity to recovery procedures in the event of a cluster service or disk device failure, it will not affect configuration or performance, and it is a good choice when hardware resources are limited to a single RAID controller. You may also create a new cluster group specifically for RightFax resources. For more information about creating and configuring cluster groups, see Microsoft documentation.



**Important** If SQL Server is installed on the same cluster, it is recommended that the RightFax resources be added to the same cluster group which contains the SQL instance to be used. This will allow a dependency to be created which will prevent the RightFax services from attempting to start if the SQL instance is unavailable.

## Configuring RightFax DocTransport Servers

It is strongly recommended that no fax boards be installed on clustered servers. Phone lines and T1 lines cannot be clustered and will not failover in the event of a hardware problem. Captaris recommends that you use remote DocTransport Servers, connecting to the virtual RightFax server. For more information about Remote DocTransport Servers, see the RightFax *Administrator's Guide*.

For the purpose of these instructions, the name 'RightFax group' is used to designate the cluster group containing the RightFax resources.

## To create a clustered print spooler

1. Open the quorum drive (shared disk) and create a folder called **spool**.
2. Open Cluster Administrator, create a new print spooler resource in the RightFax group (right-click **Resources** and click **New > Resource**). The New Resource Wizard opens.
3. In the name box, type the name of the resource (e.g., RightFax Print Spooler). The description can be the same as the resource name.
4. Set the Resource Type to **Print Spooler** and the group to **RightFax group**. Click **Next**.
5. Verify that both cluster nodes are listed in the **Possible Owners** box and click **Next**.
6. In the **Resource Dependencies** box, add the cluster name and shared disk. Click **Next**.
7. On the **Parameters** tab, verify the path to the spool folder is set to `<shared disk:\spool>`.
8. To add the resource to the group, click **Finish**.

## To cluster the TCP/IP print server service

This step is required only if you plan to install the RightFax Integration Module.

1. On both nodes, install **Print Services for Unix**. For more information about installing Print Services for Unix on Windows 2003, see Microsoft documentation.
2. Stop the TCP/IP print server service (Print Services for Unix) and change its startup type to manual. Perform this step on both nodes.
3. Open Cluster Administrator and create a new resource in the RightFax group (right-click **Resources** and click **New > Resource**). The New Resource Wizard opens.

4. In the name box, type the name of the resource (e.g., TCP/IP print server). The description can be the same as the resource name.
5. Set the Resource Type to **Generic** and the group to **RightFax group**. Click **Next**.
6. From the properties dialog of the new service, select the print spooler resource as a dependency.
7. Verify that both cluster nodes are listed in the **Possible Owners** box and click **Next**.
8. In the **Resource Dependencies** box, add the **print spooler** and click **Next**.
9. On the **Parameters** tab, set the name to **LPDSVC** and check the option to **Use Network Name for Computer Name**. To add the resource to the group, click **Finish**.

#### To create cluster resources for required networking services

1. From Cluster Administrator, open the RightFax group and take the **network name** resource offline.
2. Right-click the network name resource and choose properties. Click the **Parameters** tab and click the option to **Enable Kerberos Authentication**. When finished, click **OK**.
3. Bring the network name resource back online.
4. Using Cluster Administrator, right-click the RightFax group and choose **new resources**.
5. In the name and description fields, type **MSDTC**.
6. Set the Resource Type to **Distributed Transaction coordinator** and verify the RightFax group is selected. Click **Next**.
7. Confirm that both cluster nodes are listed in the **Possible Owners** box and click **Next**.

8. In the **Resource Dependencies** window, select the physical disk and network name. When finished, click **Add**. To complete the process, click **Finish** followed by **OK**.
9. Using Cluster Administrator, right-click the RightFax group and choose **new resources**.
10. In the name and description fields, type **Message Queuing**.
11. Set the Resource Type to **Message Queuing** and verify the RightFax group is selected. Click **Next**.
12. Confirm that both cluster nodes are listed in the **Possible Owners** box and click **Next**.
13. In the **Resource Dependencies** window, select the network name and disk resources. When finished, click **Add**. To complete the process, click **Finish** followed by **OK**.
14. Bring all resources online.

#### To verify failover and failback

1. Using Cluster Administrator, right-click the RightFax group and choose properties. Confirm the primary node is the **preferred owner**.
2. Click the **Failback** tab and enable the option to **Allow for failback immediately**.
3. Verify that the primary node owns all resources, and that they are online.
4. Shut down the primary node and verify that all resources fail over to the secondary node.
5. Restart the primary node and verify that all resources fail back.

## Installing RightFax on each cluster node

1. Ensure the primary node has control of the RightFax group, including the shared drive to which RightFax will be installed.
2. Verify that Microsoft .NET Framework 3.5 is installed on both nodes.
3. On the primary node run the RightFax 9.4 Setup according to the instructions in [Chapter 4, "Installing and Integrating RightFax with SQL Server 2000 or 2005"](#). Be sure to provide the network name of either the clustered SQL Server instance (if used) or the name of a remote SQL Server.
4. On the primary node, install the RightFax server software to the **shared drive** according to the instructions in [Chapter 4, "Installing and Integrating RightFax with SQL Server 2000 or 2005"](#) and the additional requirements outlined below.
  - Use a WorkServer service account that is a domain member and has access to all nodes (local accounts cannot be used).
  - If prompted to restart the computer at the end of the installation, select **No**.
  - Do not install the fax board hardware drivers.
5. Open the Windows Services management console and stop all running RightFax services. Set the startup type all of the RightFax services to manual.



**Tip** All RightFax service names begin with RightFax or Captaris.

6. On the primary node, open the Windows Control Panel and double-click **Printers**.
7. Right-click the HPFAX printer and choose **stop sharing**.
8. From Cluster Administrator, right-click the RightFax group and choose **Move Group**.
9. Confirm the RightFax resources are back online and are owned by the secondary node.
10. Switch to the secondary node and delete the entire RightFax directory from the shared drive.
11. On the secondary node, run the RightFax 9.4 Setup.
12. Install RightFax on the secondary node, using the same options chosen during the primary node setup. Remember to change the install location to the shared drive, not the default of C:\ProgramFiles\RightFax.
13. When asked whether to overwrite the existing database or add a new instance, select **overwrite**.
14. Open the Windows Services management console and stop all running RightFax services. Set the startup type all of the RightFax services to manual.
15. Open the Windows Control Panel and double-click **Printers**.
16. Right-click the HPFAX printer and choose **stop sharing**.

## To create the HPFAX print queue

1. From either node, click **Start > Run** and type \\<cluster\_name> when finished click **OK**. Windows Explorer opens.
2. Double click **Printers and Faxes**. The Printers and Faxes view opens.
3. Double click **Add Printer**. The Add Printer Wizard opens. Click **Next**.
4. Choose the option to **Create a new port**. Using the drop-down, select the **Standard TCP/IP Port** option and click **Next**. The printer port wizard opens. Click **Next**.
5. Type the shared cluster IP address as the **Printer Name or IP Address** and HPFAX as the **Port Name**. When finished, click **Next**.
6. Select **Custom** and click **Settings**. The **Configure Standard TCP/IP Port Monitor** window opens. Select **RAW** as the **Protocol**, set the **Port Number** to 53199, and click **OK**.

7. To continue, click **Next** followed by **Finish**.
8. Select an HP LaserJet III, LaserJet 4, or LaserJet 5 printer driver and click **Next**.
9. In the **Printer name** field, type HPFAX and click **Next**.
10. Verify the **Share name** option is selected and the adjacent field reads HPFAX. When finished, click **Next**.
11. Optionally, enter **Location** and **Comment** information and click **Next**.
12. Do not print a test page. Click **Next** followed by **Finish**.
13. Right-click the HPFAX printer and choose **Properties**.
14. Click the **Advanced** tab followed by **Separator Page**. Enter the following for the separator page:  
  

*SharedDrive*:\\RightFax\\bin\\RightFax.sep

Where *SharedDrive* is the drive letter of the shared drive where RightFax is installed. When finished, click **OK** at the separator page and HPFAX printer properties.
15. Restart both nodes. Once restarted, the primary node should have control of the RightFax group, including the shared drive.
16. Use Cluster Administrator to move the group to the node which was installed LAST.

## Creating the RightFax Cluster Resources

To create the RightFax cluster resources, run Cluster Administrator and open the RightFax cluster group. You will create the following resources.

Table 8a RightFax Cluster Resources

Name of Resource	Type of Resource	Service Name
RightFax File Share	File Share	N/A
Captaris Conversion Engine	Generic Service	RFIsoConv

Table 8a RightFax Cluster Resources (Continued)

Name of Resource	Type of Resource	Service Name
Captaris Sync Module	Generic Service	CapaSync
RightFax DocTransport	Generic Service	RFDocTrans
RightFax Server Module	Generic Service	RFServer
RightFax Queue Handler	Generic Service	RFqueue
RightFax RPC Server Module	Generic Service	RFRPC
RightFax Remoting Service	Generic Service	RFremote
RightFax Paging Module	Generic Service	RFpage
RightFax E-mail Gateway	Generic Service	RFemail

### To create the File Share resource

1. Right-click **Resources**, and choose **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter *RightFax File Share*.
3. Set Resource Type to **File Share** and select the RightFax group.
4. In the **Possible Owners** box, select both nodes and click **Add**.
5. In the **Resource Dependencies** box, add the Disk Resource, Network Name, and IP Address resources.
6. In the **Generic File Share Parameters** box, enter the path to the RightFax directory on the shared drive. Be sure to use RightFax as the share name.
7. On the Parameters tab, click the **Permissions**. Give the Everyone group **Change** permission.
8. To add the resource to the group, click **Finish**.
9. Bring the resource online.

### To create the RightFax RPC Server Module resource

1. Right-click **Resources**, and choose **New > Resource**. The Generic Resource wizard opens.
2. In the **Name** and **Description** boxes, enter *RightFax RPC Server Module*.
3. Set **Resource Type** to **Generic Service** and select the RightFax group.
4. In the **Possible Owners** box, select both nodes and click **Add**.
5. In the **Resource Dependencies** box, add the RightFax file share, disk resource, network name, and IP address. If you are clustering your SQL Server, you must also add the SQL server name as a dependency.
6. In the **Generic Service Parameters** box, type *RFRPC*. Be sure to select the option to **use network name for computer name**.
7. Under **Registry Replication**, click **Add** and type **SOFTWARE\RightFax**. This allows the registry information stored by RightFax to dynamically change from one node to another in the event of a failure.
8. To add the resource to the group, click **Finish**.

### To create the RightFax Remoting Service resource

1. Open the Windows Control Panel and double-click **RightFax Remoting Service**. The RightFax Remoting Configuration opens. To write service information to the Windows registry, click **OK**.
2. Right-click **Resources**, and choose **New > Resource**. The Generic Resource wizard opens.
3. In the **Name** and **Description** boxes, enter *RightFax Remoting Service*.
4. Set **Resource Type** to **Generic Service** and select the RightFax group.

5. In the **Possible Owners** box, select both nodes and click **Add**.
6. In the **Resource Dependencies** box, add the RightFax file share.
7. In the **Generic Service Parameters** box, type **RFREMOTE**. **Do Not** enable **use network name for computer name**.
8. To add the resource to the group, click **Finish**.

### To create the Captaris Conversion Engine resource

Complete this step only if your organization sends Word, Excel, PowerPoint, or HTML documents.

1. Open the Windows Control Panel and double-click **Captaris Conversion Engine**. The Captaris Conversion Engine Configuration opens.
2. Click **OK** to write the service information to the Windows registry.
3. Run Cluster Administrator and open the RightFax cluster group.
4. Right-click **Resources**, and choose **New > Resource**. The Generic Resource wizard opens.
5. In the **Name** and **Description** boxes, enter *Captaris Conversion Engine*.
6. Set **Resource Type** to **Generic Service** and select the RightFax group.
7. In the **Possible Owners** box, select both nodes and click **Add**.
8. In the **Resource Dependencies** box, add the RightFax file share and Message Queuing.
9. In the **Generic Service Parameters** box, type **RFISOCONV**. **Do Not** enable **use network name for computer name**.
10. To add the resource to the group, click **Finish**.

### To create the Captaris Sync Module resource

Complete this step only if your organization synchronizes users via Active Directory or an LDAP source, such as Lotus Domino server.

1. Open the Windows Control Panel and double-click **Captaris Sync Module**. The Captaris Sync Module Configuration opens.
2. Click **Sources & Destinations**. The **Sync Sources and Destination** window opens. Define a sync source and destination. For information about sources and destinations, click the ? in the upper right-hand corner of the Sync Module. When finished, click **OK**.
3. Run Cluster Administrator and open the RightFax cluster group.
4. Right-click **Resources**, and choose **New > Resource**. The Generic Resource wizard opens.
5. In the **Name and Description** boxes, enter *Captaris Sync Module*.
6. Set **Resource Type** to **Generic Service** and select the RightFax group.
7. In the **Possible Owners** box, select both nodes and click **Add**.
8. In the **Resource Dependencies** box, add the RightFax Remoting service.
9. In the **Generic Service Parameters** box, type **CapaSync**. Do **Not** enable **use network name for computer name**.
10. To add the resource to the group, click **Finish**.

### To create the DocTransport Module resource

1. Right-click **Resources**, and choose **New > Resource**. The Generic Resource wizard opens.
2. In the **Name and Description** boxes, enter *RightFax DocTransport Module*.
3. Set **Resource Type** to **Generic Service** and select the RightFax group.

4. In the **Possible Owners** box, select both nodes and click **Add**.
5. In the **Resource Dependencies** box, add the RightFax RPC Module (RFRPC).
6. In the **Generic Service Parameters** box, type **RDOCTRANS**. Be sure to select the option to **use network name for computer name**.

To add the resource to the group, click **Finish**.

### To create the RightFax Server Module resource

1. Right-click **Resources**, and choose **New > Resource**. The Generic Resource wizard opens.
2. In the **Name and Description** boxes, enter *RightFax Server Module*.
3. Set **Resource Type** to **Generic Service** and select the RightFax group.
4. In the **Possible Owners** box, select both nodes and click **Add**.
5. In the **Resource Dependencies** box, add the RightFax RPC Module (RFRPC).
6. In the **Generic Service Parameters** box, type **RFSERVER**. Be sure to select the option to **use network name for communications**.
7. To add the resource to the group, click **Finish**.

### To create the RightFax Queue Handler resource

1. Right-click **Resources**, and choose **New > Resource**. The Generic Resource wizard opens.
2. In the **Name and Description** boxes, enter *RightFax Queue Handler*.
3. Set **Resource Type** to **Generic Service** and select the RightFax group.

4. In the **Possible Owners** box, select both nodes and click **Add**.
5. In the **Resource Dependencies** box, add the RightFax file share.
6. In the **Generic Service Parameters** box, type **RQUEUE**. Be sure to select the option to **use network name for communications**.
7. To add the resource to the group, click **Finish**.

#### To create the RightFax Paging Module resource

1. Right-click **Resources**, and choose **New > Resource**. The Generic Resource wizard opens.
2. In both the **Name** and **Description** boxes, enter *RightFax Paging Module*.
3. Set **Resource Type** to **Generic Service** and select the RightFax group.
4. In the **Possible Owners** box, select both nodes and click **Add**.
5. In the **Resource Dependencies** box, add the RightFax file share.
6. In the **Generic Service Parameters** box, type *RFPAGE*. Be sure to select the option to **use network name for communications**.
7. To add the resource to the group, click **Finish**.

#### To create the RightFax E-mail Gateway resource (if installed)

1. Right-click **Resources**, and choose **New > Resource**. The Generic Resource wizard opens.
2. In both the **Name** and **Description** boxes, enter **RightFax E-mail Gateway**.
3. Set **Resource Type** to **Generic Service** and select the RightFax group.

4. In the **Possible Owners** box, select both nodes and click **Add**.
5. In the **Resource Dependencies** box, add the RightFax Server resource (RFSERVER).
6. In the **Generic Service Parameters** box, type **RFEMAIL**. Be sure to select the option to **use network name for communications**.
7. To add the resource to the group, click **Finish**.

#### To complete the cluster installation

1. Confirm that all RightFax resources on-line.
2. Open the Windows Control Panel and double-click the Captaris Conversion Engine. The Captaris Conversion Engine configuration opens. Click **OK** to write service information to the Window registry. Repeat these steps for the Captaris Sync Module and RightFax Remoting service.
3. From the node with ownership of the RightFax group, open Windows registry editor.
4. Browse to HKLM\SOFTWARE\RightFax\Capasync\. Change the **RemoteHost** value to the cluster name.
5. Browse to HKLM\SOFTWARE\RightFax\Capasync\Profiles\<GUID> (the GUID subkey is a unique, 32 character name that is associated with Capasync profiles). Change the **RemoteHost** value to the cluster name.
6. Browse to HKLM\SOFTWARE\RightFax\Install\. Change the value **RFServerName** to the shared network name of the RightFax group.
7. Browse to HKLM\SOFTWARE\RightFax\Remoting. Change the **RemoteHost** value to the cluster name.
8. Browse HKLM\SOFTWARE\RightFax\Production\. Change the **RightFaxServerName** value to the shared network name of the RightFax group.



9. From Cluster Administrator, verify that the RightFax group can be taken offline and online without errors.
10. Move the group between the nodes, verifying that all the resources start correctly on each node. Correct any issues found before proceeding.
11. Make sure the RightFax resources are online. Install remote BoardServers as required, pointing them to the shared network name of the RightFax cluster group, rather than the name of any individual node. When prompted during remote BoardServer installation, select the option to use an existing SQL Server, and supply the correct server name (clustered instance name if applicable) and logon information

## Configuring the Integration Module in a Windows 2003 Cluster

Follow the instructions below if licensed for the Integration Module.

1. From the active node, open the RightFax Integration applet from the Windows Control Panel.



**Note** If the Integration applet does not appear in the Control Panel, locate the Shared Files folder under the RightFax Directory, and open *rfprod\_ctl.cpl* to launch the applet.

2. Run the Integration Wizard or manually configure the Integration Module. When finished, click **OK**.



**Important** Change the RightFax Server name to the shared network name of the RightFax group.

3. Browse HKLM\SOFTWARE\RightFax\Production\. Here, you will find a subkey with the same name as the node. Rename this subkey to the shared network name of the RightFax group.

4. Still at HKLM\SOFTWARE\RightFax\Production\RFPProd, modify the command line for the three default printer inputs to use TCP/IP ports rather than named pipes by using the table below. The numbers at the end of the new command lines are the TCP/IP port numbers. You can select any port number that is not in use on either node of the cluster. Alternatively, you may delete and recreate existing inputs, however, you must set the new inputs to the type of "TCP/IP Port"

Table 8b

Printer Name	Default Command Line	Required Command Line
HostFax	nplisten -c "makedoc \$\$" -p hflpr	portlstn -c "makedoc \$\$" -p 8201
PCL	nplisten -c "pfilter \$\$   makedoc" -p hfpcl	portlstn -c "pfilter \$\$   makedoc" -p 8202
Postscript	nplisten -c "pfilter -p \$\$   makedoc" -p hfps	portlstn -c "pfilter -p \$\$   makedoc" -p 8203

5. If additional printer inputs are needed, create them in the same way using TCP/IP ports. Named pipes will not function in the cluster environment.
6. Click OK to close the applet and create the service.
7. Verify that the RightFax Integration Module service is set to manual start.
8. Move the group to the second node.
9. Open the Integration applet on the second node. All configuration settings should be retained. Click OK to close the applet and create the service.
10. Verify that the RightFax Integration Module service is set to manual start.

### Create a new Generic Service resource in the RightFax group

1. Right-click **Resources**, and choose **New > Resource**. The Generic Resource wizard opens.
2. In both the **Name** and **Description** boxes, enter *RightFax Integration Module*.
3. Set **Resource Type** to **Generic Service** and select the RightFax group.
4. In the **Possible Owners** box, select both nodes and click **Add**.
5. In the **Resource Dependencies** box, add the RightFax Server resource (RFSERVER).
6. In the **Generic Service Parameters** box, type **RFPROD**. Be sure to select the option to **use network name for communications**.
7. To add the resource to the group, click **Finish**.
8. Bring the new resource online.
9. Verify failover and failback is successful.

### Configuring Integration Module Printers

1. From either node, click **Start > Run** and type \\<cluster\_name>. when finished Click OK. Windows Explorer opens
2. Double click **My Computer > Control Panel > Printers and Faxes**. The Printers and Faxes window opens.
3. Right-click the HostFax printer and choose **Properties**.
4. Click the **Ports** tab followed by **Add Port**. The Printer Ports window opens.
5. Create a new TCP/IP port, using the shared cluster IP address as the target IP address. The port name should be HostFax.

6. Select **Custom Device Type**, and click **Settings**. Select RAW as the protocol and set the port number to 8201.
7. Configure the printer to use a **Generic Text / Only** print driver.
8. Share the printer using its default name.
9. Repeat these steps for PCL and Postscript printers, using HFPCL and HFPS as the port names and 8202 and 8203 as port numbers.

### Using FTP with the Integration Module

If FTP is to be used for the Integration Module, add a virtual directory to BOTH nodes using IIS Manager, with the local path being the \RightFax\Production\Inbox directory on the shared drive. It is not necessary to cluster the FTP service.

### Applying Service Packs and Service Releases

To apply a RightFax service pack or service release on a RightFax cluster:

1. Run Cluster Administrator and stop all RightFax services. Do not take the RightFax file share offline.
2. Apply the update to the active node according to the instructions provided with the update.
3. Move the group containing the RightFax services to the next node without bringing them online.
4. Apply the update to the new node according to the instructions provided with the update.
5. Apply the update to any Remote DocTransport, WorkServers, and server joined to a RightFax collective, if applicable.
6. From Cluster Administrator, bring the RightFax services online.

■ ■ ■

## Chapter 9

# Upgrading and Adding Fax Channels, User Licenses, and Optional Components

You can easily expand and extend the functionality of your RightFax server by upgrading your RightFax server license, adding fax channels and user licenses, or by enabling new components.

Most of these additions to your fax server can be made without installing or re-installing software. You can add new functionality to all RightFax servers using the Captaris Product Licensing Utility, which is included with the server installation of RightFax 9.4

4. In the right pane, the server type, number of licensed fax channels and users, and enabled components are listed.

## Checking for Installed Components

The different types of RightFax servers are installed with different numbers of licensed fax channels and users, and different optional components enabled. Follow these steps to display a list of the fax channels, users, and components that have been enabled on the server.

### To check for installed components

1. Log on the RightFax server as an administrator.
2. Click **Start > All Programs > Captaris > Product Licensing Utility**. The Captaris Product Licensing Utility (PLU) opens.
3. In the list of product licenses in left pane, click **RightFax**.

## Upgrading the RightFax Server License

Captaris RightFax servers can support small, medium, and large enterprises. The following servers are available.

Table 9a RightFax Server Types

RightFax server	Description
Business server	This RightFax server supports unlimited user accounts, It includes one fax channel, and is expandable to 30 fax channels.
Enterprise server	<p>This RightFax server supports unlimited user accounts. It includes three WorkServers and one fax channel, expandable to support unlimited fax channels. This server includes the RightFax Web Access and the OCR Router™, OCR Converter™, Docs-on-Demand™, and TeleConnect™ modules.</p> <p>The Enterprise server is also available as a product suite that includes the RightFax Enterprise server, plus the Gateway for Microsoft® Exchange, the Gateway for Lotus Notes®, the Document Management Connector™, and the SNMP Alerting™, and PDF modules.</p>
Integration server	<p>The RightFax server and the RightFax Integration Module enable applications for information exchange. The Integration Module integrates RightFax with applications on mainframe, mid-range, and local area network host systems.</p> <p>The RightFax Business Integration Module can be installed on the RightFax Business and Enterprise servers.</p> <p>The RightFax Enterprise Integration Module can be installed on the RightFax Enterprise server.</p>
Satellite server	This RightFax server supports up to 15 user accounts. It includes two WorkServers and two fax channels.

### To upgrade the RightFax server license, add channels, add user licenses, and enable new components

The following steps require an Internet connection on the RightFax server. If your RightFax server is not connected to the Internet, follow the instructions in the next section, [“Activating RightFax components without a RightFax server Internet connection”](#).

1. Contact your RightFax distributor and purchase the appropriate license. You will be sent a new license card that includes a new SUID (required for activation).
2. Log on to the RightFax server as an administrator.
3. Click **Start > All Programs > Captaris > Product Licensing Utility**. The Captaris Product Licensing Utility opens.
4. In the list of product licenses in left pane, click **RightFax**.
5. In the right pane, the server type, number of licensed fax channels and users, and enabled components are listed.
6. On the PLU toolbar, click **Activate**.
7. Type an e-mail address and the new SUID. When finished, click **Activate**.
8. If activation is successful, the RightFax license agreement will appear. To continue, click **Accept**.
9. Review your new license summary. When finished, click **Close**. If you experience problems with activation, call the RightFax product support group at (520) 320-7070.

## Activating RightFax components without a RightFax server Internet connection

If your RightFax server is without Internet access, you may use another computer with Internet access to assist with activation. Requirements for this process are:

- Computer with Internet access
  - Network access to the RightFax server or access to a removable storage medium such as a compact disc or compact flash drive.
1. Contact your RightFax distributor and purchase the appropriate license. You will be sent a new license card that includes a new SUID (required for activation).
  2. Log on to the RightFax server as an administrator.
  3. Click **Start > All Programs > Captaris > Product Licensing Utility**. The Captaris Product Licensing Utility (PLU) opens.
  4. In the list of product licenses in left pane, click **RightFax**.
  5. In the right pane, copy and save the characters next to **Activation String**.
  6. Take the activation string to another computer with Internet access and open the following Web page:  
<https://activation.captaris.com/registration/registration.aspx>
  7. At the activation Web page, type your e-mail address and activation string.
  8. Click the drop-down arrow and pick RightFax from the product list. When finished, click **Next**.
  9. Type the information requested at the System Information page and click **Next**.
  10. Enter optional contact information at the next two pages and click **Next**.

11. To process your license and generate a license file, click **Finish**. If successful, click the *Download License Activation File* link. Save this file (RightFax.XML) to a removable storage medium or otherwise make it available to the RightFax server. When finished, close the Web browser and return to the RightFax server.
12. On the PLU toolbar, click **Import**. Use the button next to the **License File** field at the bottom of the PLU to browse to the location of the RightFax.XML file. When finished, click **OK**. When prompted to overwrite your existing license, click the option to **Backup existing license** and click **Yes**.
13. Review your new license summary. When finished, click **Close**. If you experience problems with activation, call the RightFax product support group at (520) 320-7070.

## Licensing Brooktrout SR140 Channels

The Brooktrout License Manager, provided by Brooktrout allows you to self-active your SR140 license key. Instructions and an activation wizard are included with Brooktrout License Manager. Using this method requires an active Internet connection. Alternatively, you may activate your SR140 channels by contacting RightFax technical support at (520) 320-7070. A support representative will guide you through the activation process.



**Important** To activate your SR140 channels, you must have an SR140 license card. This card contains your SR140 license key and is included with the purchase of SR140 channels.

### To open Brooktrout License Manager

1. Click the Windows **Start** button > **All Programs** > **Brooktrout** > **Brooktrout License Manager**. The Brooktrout License Manager opens.
2. To complete the activation, follow the instructions provided with the online Help shipped with the Brooktrout License Manager. For quick access to the Help, click the ? located on the license manager toolbar.

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## Chapter 10

# Documentation and Support

### RightFax Documentation

Documentation for the RightFax server, the RightFax client applications, and all of the RightFax components and modules is installed in PDF format on the RightFax server.

All of the RightFax user guides are located in the RightFax\Docs folder on the RightFax server and on the product DVD. In addition, most of these documents can be downloaded from the RightFax Web site at

<http://www.captaris.com/support/documentation/rightfax/index.html>.

The following table describes all of the user guides available for RightFax and lists the RightFax components that each guide supports.



**Note** To view these files, you must have Adobe Acrobat Reader installed. A copy of Adobe Acrobat Reader can be found on the RightFax server installation CD in the Docs folder.

Table 10a RightFax User Guides

Guide name	Description
Activating and Using PDF Module	A guide to installing, configuring, and using the RightFax PDF Module.
Administrator's Guide	A comprehensive guide to configuring and maintaining all RightFax servers.

Table 10a RightFax User Guides (Continued)

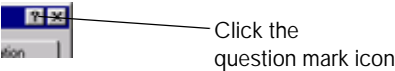
Guide name	Description
Client for Lotus Notes Quick Reference Card	A reference card for users who will send and manage faxes with the RightFax Lotus Notes Module.
Client for Microsoft Outlook Quick Reference Card	A reference card for users who will send and manage faxes with the Microsoft Exchange Module.
Connector for SAP Guide	A guide to installing, configuring, and using the RightFax Connector for SAP.
Docs-on-Demand Guide	A guide to installing, configuring, and using RightFax Docs-on-Demand.
Fax Board Guide	A guide to all the fax boards supported by RightFax, including required hardware and software configuration.
FaxUtil Quick Reference Card	A reference card for users who will send and manage faxes with RightFax FaxUtil.
Oracle Purchasing 11i Connector Guide	A guide to installing, configuring, and using the RightFax Connector for Oracle Purchasing 11i.
RightFax Lotus Notes Module Guide	A guide to installing, configuring, and using the RightFax Lotus Notes Module.

Table 10a RightFax User Guides (Continued)

Guide name	Description
RightFax Microsoft Exchange Module Guide	A guide to installing, configuring, and using the RightFax Microsoft Exchange Module.
Installation Guide	A guide to installing the RightFax server, upgrading the server, and adding new components.
Integration Module Guide	A guide to installing, configuring, and using the RightFax Integration Module.
SecureDocs Module Guide	A guide to installing, configuring, and using the RightFax SecureDocs Module.

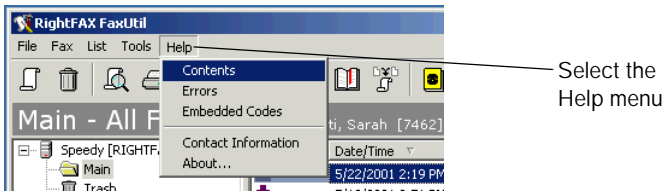
# Getting Help Online

Most of the RightFax windows and dialog boxes include context-sensitive help. Typically, this help describes each field and option in a dialog box. This context-sensitive help can be launched from the question mark icon in the title bar of a dialog box.



- Click this icon, and then click any option on the dialog box to view its definition.
- Or, press F1 to view a definition.

Online help for tasks or conceptual topics also is available. View this help by selecting the **Help** menu. You can browse the help for a topic or use the index to look up key words and terms.

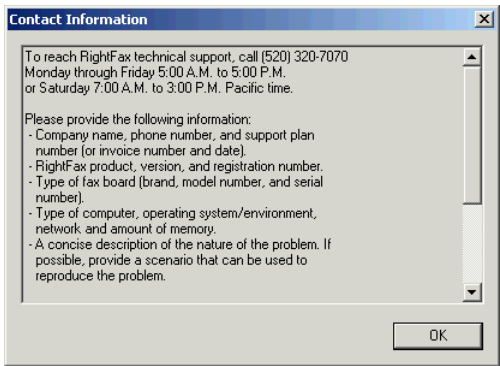


The Captaris Web site offers the latest product information. Updated documentation, a searchable customer support knowledgebase, software downloads, and the latest product offerings are all online at [www.captaris.com/support](http://www.captaris.com/support).

## Editing Contact Information in FaxUtil

In the FaxUtil **Help** menu, users can select **Contact Information**, and a dialog box opens that lists RightFax technical support contact information.

Figure 10.1 The Contact Information Dialog Box



This contact information appears in English with RightFax contact information, but you can edit the text to provide customized information. To do so, edit the text file `Contact.txt` located in the `\RightFax\Bin` folder on the RightFax server. You can enter 24 lines of text and up to 59 characters per line.



## Captaris Training Services

RightFax training gives you the skills to optimize your RightFax solution. Our comprehensive technical, administrative, and user training programs produce full utilization and understanding of RightFax products. Regular classes are held throughout the year. Training materials and computer-based training tools are also available. For more information on RightFax training, please visit our Web site at [www.captaris.com/training](http://www.captaris.com/training), and let us help you develop a customized training plan for your organization.

## Captaris Implementation Services

Captaris Implementation Services offers a team of highly skilled engineers who are experts in the deployment, implementation, and integration of RightFax solutions. Implementation services include installation and configuration, upgrades, configuration review, and advanced integration services. Whether it's through remote dial-in, an on-site implementation, or a combination of both, the Implementation Services team can quickly integrate RightFax solutions with your existing applications.

## Customer Support

If you have questions of a technical nature, contact your organization's RightFax administrator or network administrator before calling the Captaris Technical Support. On the Captaris Web site (<http://www.captaris.com/support>), a database of customer support knowledge contains a wealth of information on installing, configuring, and maintaining RightFax software.

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